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FOREWORD

At the heart and core of the educational process is the teacher. Buildings, equipment, instructional materials, well-designed curricula—they are necessary, but without qualified and highly-motivated teachers they are of little avail. An educational system is as good as the teachers in it—and no better.

Teaching is a vocation, in the original meaning, of that term—a calling for which one prepares oneself through study and discipline. A teacher should have a sympathetic understanding of the pupil's mind; that goes without saying, but to have such sympathetic understanding is not enough. A teacher requires much more than that: he needs to have a vision of the kind of society for which he is preparing the pupils and to the making of which the school is to render its contribution; scholarship that commands respect and intellectual zest that communicates itself; an imaginative grasp of the teaching and learning process; moral and social sensitivity; and that urge for perfection in the doing of small things or big, which makes for quality in education.

In any scheme of educational reconstruction the training of teachers is therefore of crucial importance. Regretably this problem is often viewed in terms of quantitative output, how many are the training institutions producing every year? The real question is, how well are they being trained? Acquisition of a certificate is no measure of the effectiveness of teacher education. In this sphere, quality alone matters.

In India we have achieved remarkable expansion of educational facilities at all stages. That is something of which we may be justly proud; but it also increases our responsibility manifold. The schools have now to face problems they had never known before. They can do this only if the teachers are trained effectively to deal with these new and complex problems—sociological, economic, educational and philosophical. It has, however, to be admitted that the earnest efforts which have gone into the reconstruction of the educational system in the country have not included any fundamental measures for the reorganisation and revitalisation of teacher education. The history of educational developments in all advanced countries during the last two decades underlines one lesson:

the training of teachers must be given the highest priority if the problems of educational reconstruction are to be tackled with any measure of confidence. It is significant that all schemes of educational reconstruction in these countries were built upon a reconstruction of the system of teacher education.

In India also there has been of recent years a great deal of heart-searching on this account. Our system of teacher training remains substantially what it was when it was first introduced—a carbon copy of the then British system. The original has changed out of recognition but not the copy. Recognition is, however, growing stronger that the system of training teachers, the objectives and the techniques must be re-fashioned to meet the needs of our schools in the new social and economic context in which they are functioning.

This publication : **SYMPOSIUM ON TEACHER EDUCATION IN INDIA** bears testimony to the thinking that is going on among teacher educators. Its contributors include experienced educators and teachers. The subjects they have selected for treatment cover the whole range of teacher education. It is significant that in the course of the analysis that each contributor offers he is almost compelled to question and challenge many of the existing practices and assumptions on which they are based. I believe that the "Symposium" would have served an invaluable purpose if it provokes critical thinking among all who are concerned with education on this most vital of all questions—teacher education.

RAJA ROY SINGH

Joint Director,

National Council of Educational
Research and Training.

New Delhi :

May 30, 1964.

P R E F A C E

Teacher Education has for the last few decades been receiving the earnest attention of educators in the country. With the realization of the fact that education must reach unto the last person in the country; the old belief that good teachers are born not made, has been replaced by the belief that good teachers have to be trained.

Participation of teachers and teacher educators in the development of educational programmes and policies in the country has not yet developed to a point which could compare favourably with that of their counterparts in other parts of the democratic world. Teachers organisations in India have not yet produced worthwhile literature in the field. They have been concerned more often with the problems relating to the economic and social welfare of teacher community and less frequently with educational problems in a board way.

The present volume is one of the first attempts of the All India Association of teachers Colleges to produce useful literature in the field. The volume is a symposium which discusses various aspects of teacher education in the country.

The idea owes its birth to the imagination and the foresight of Prof. T.K.N. Menon, ex-President of the Association. The Association is grateful to him for conceiving the idea and for collecting the articles. The Association is also grateful to all those who contributed to the symposium and rendered assistance in bringing out of this publication.

Delhi
29. 5. 1964

A. C. DEVE GOWDA
*President, A.I.A.T.C. &
Director, DEPOSE.*

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CHAPTER I

THE EDUCATION OF SECONDARY TEACHERS IN INDIA

A Historical Survey (1800-1964)
(Dr. S. N. Mukerji)

[THOUGH Teacher Education has assumed an important role in all educational planning and thoughts today, such was not always the case. Even at the beginning of this century, the general belief was that, 'Teachers are born and not made'. Mastery of subject-matter was all that was required of a would-be teacher. Professional training in teaching made no sense even to some of the best educators. All this is changed now. Teaching is beginning to be recognised as an expert's job. The function undertaken by teachers have undergone a vast change. In tune with these, training requirements and whole concepts about teachers and teacher-education are engaging the attention of some of the best brains in the country. Dr. S.N. Mukerji of Baroda University, traces in this introductory chapter the course of the flow from the 19th century to the present day. It is exhilarating and exciting to have a telescopic view of the almost revolutionary changes that have come about. Today we stand at the threshold of even greater promises. Their fulfilment may well depend upon an understanding of the roots and a vision of the fruits.]

INTRODUCTION

The training of secondary teachers in India has not been a static system but an evolutionary process. For the most part this process has gone on gradually but steadily. During the nineteenth century, it was debated whether secondary teachers needed full-time training at all. The general belief was that good 'general education' was of far greater significance than 'professional training'.

It was Lord Curzon, who fully realised the need for regular training of teachers. In his Education Resolution of 1904, he placed a great emphasis on teacher education. Besides, funds for the purpose also became available as a result of the liberal grants sanctioned by the Central Government. Due to these two factors, the need for teacher education was fully recognized in the country and a number of teachers' colleges for training secondary teachers were established during the first decade of the present century. Since then, the progress of teacher training has been very steady.

The rise of the national movement since the beginning of the present century also gave an impetus to teacher education. The stimulus to nationalism came not from the West but from the East with the victory of Japan over Russia in 1905. The victory of an eastern over a western power had wide repercussions. It was welcomed as sounding knell of European domination over the East. India, it was felt, might develop nationhood and national power in the same way as Japan, the secret of whose success lay in national unity and individual capacity for self-sacrifice. The role that education should play in national development was also appreciated.

Thus there grew a demand to have more schools and colleges. It was also realized that the schools should teach better and that the colleges should give a more thorough preparation for life. But the country was very weakly furnished with the personnel indispensable to educational success. It had not a sufficient number of properly equipped teachers. It was also felt that the standard of university education was much impaired by the quality of the teaching given in the secondary schools¹ !

Thus the country was concerned with the qualitative improvement of secondary education. For achieving this end, the training of teachers was considered necessary and urgent.

The content of teacher education of secondary teachers also underwent sudden and revolutionary changes. The first of these revolutions took place about 1882 with the recommendations of the Hunter Commission, the second round about 1904 with the publication of the Government of India's Resolution, the third round about 1919 with the reforms suggested by the Calcutta University Commission, and the fourth with the dawn of independence in 1949.

THE EARLY DAYS

The training of secondary teachers is closely associated with secondary education. When the British occupied this country, they found a number of indigenous institutions of higher learning (secondary schools and colleges). These were the *tols*, *madressahs* and *pathshalas*. By the beginning of the nineteenth century, the modern secondary schools came into existence. These were the English schools. In 1852, India had 52 recognized English institutions.²

1 Government of India. The Report of the Calcutta University Commission, Vol. V. Calcutta, Superintendent, Government Printing, 1919. p. 71.

2 S.N. Mukerji, Education in India—To day and Tomorrow, (4th Edn.). Baroda, Acharya Book Depot, 1960. p.115.

The method of training teachers in indigenous schools at the beginning of the nineteenth century was what has come to be known as the 'monitorial system'. What were known as the Madras, Lancasterian, Pestalozzian, Glassgow, monitorial and pupil-teacher systems in England grew out of the Indian indigenous system. But very soon the inadequacies of the system began to make themselves felt in acute form, and steps were taken in India as well as abroad for systematizing the training of teachers.

As early as 1802, William Carey had set up a normal school for primary teachers in Serampore. The Calcutta School Society established in 1819 took early steps to train teachers on the Lancasterian system. In 1825, the Court of Directors awarded the Society a monthly grant of Rs. 500/- and expressed their approbation for the education of persons working as teachers in native schools.³ The Calcutta Ladies' Society also organized a training class in 1828 for women teachers in the Calcutta Central School for Girls.⁴ In 1829, the Native Education Society of Bombay started a training class for primary teachers.⁵ Training classes were also started at the Elphinstone Institution as the society's primary schools expanded and more trained teachers were needed to run them.⁶

These institutions and organizations were primarily meant for primary teachers. The need for training secondary teachers appears to have drawn the attention of Sir Thomas Munro, the Governor of Madras. In his Minute of 10th March, 1826, he observed, 'No progress in education can be made without a body of better instructed teachers,' and he further recommended the establishment of a central school for educating teachers.⁸ The type of training to be provided in the proposed school will be evident from the following extract issued by the Secretary to the Committee of Public Instruction, Madras, issued on 24th June, 1826.

It however seems necessary, as a preliminary step, to form a body of efficient teachers, and to ensure this a central

3 A.N. Basu, ed. 'Fisher's Memoirs', Indian Education in Parliamentary Papers, Bombay, Asia Publications, 1952. p. 88.

4 J. A. Richie, ed. Selections from Educational Records, Vol. II. Calcutta, Superintendent, Government Printing, 1922. p. 38.

5 Bombay Government. A Review of Education in Bombay State, (1855-1955). Bombay, Government Printing, 1958, p. 283.

6 Richie, *op. cit.* p. 164.

7 H. Sharp, ed. Selection from Educational Record Part I, Calcutta, Government Printing, 1920. p. 74.

8 *loc. cit.*

school or college is now to be established at the Presidency for the education of the superior or collectorate teachers. The Hindoos will be taught, on grammatical rules, the vernacular language of the provinces to which they belong, and the Sanskrit; the Mussalmans will be taught Hindoostance, Persian, and Arabic; and both will be instructed in the English language, as well as in the elements of European literature and science.⁹

Thus the main purpose of establishing the central school was to prepare teachers for collectorate high schools. But it aimed at academic education and not at professional training. Thus it was held, as in other countries, that good secondary teachers could best be trained in existing secondary schools and colleges.

WOOD'S DESPATCH AND LATER

Thus, only sporadic attempts were made for training teachers during the first half of the nineteenth century. The Wood's Despatch of 1854, on which the present system of education is based, stressed the training of teachers and observed, 'to see the establishment with as little delay as possible of training schools and classes for masters in each presidency in India'.¹⁰ It recommended that the pupil-teacher system of England should be adapted to suit Indian conditions. But the Despatch more or less aimed at the training of primary teachers.

The need for training secondary teachers attracted the attention of the new Departments of Education, established in 1855. As early as in 1856-57, Mr. Howard, the Director of Public Instruction, Bombay, proposed the establishment of a regular training college in Bombay for the professional preparation of assistant masters of English schools.¹¹ But owing to the political disturbances of 1857 which necessitated retrenchment, the proposal was dropped.

Madras took the lead in the training of secondary teachers. The Government Normal School, Madras, out of which the present Teachers' College at Saidepet developed, was established in 1856. To it was attached, 'a model and practical school'. The institution is proud of having on its roll such eminent personalities as Dr. S. Radhakrishnan, Sir Samuel Ranganathan and the late Right Hon'ble V. S. Shrinivas Sastri.

In the early years of the institution, all students were given a course of general instruction and were at the same time trained for the

9 A. N. Basu. *op. cit.* p. 112.

10 Wood's Despatch, para 67.

11 Report of the Director of Public Instruction, Bombay 1856-57 para. 44.

work of teaching. In 1862, the subjects of study were changed so as to enable students to prepare for different university examinations (not education). Ten years later it was deemed expedient to narrow the sphere of its work by limiting it to professional training. In 1876, it was resolved to introduce instruction in certain useful subjects, not included in the ordinary school curriculum. A beginning was made with agriculture.¹²

The second teachers' institution is the Lahore Training College. It was established in 1881, and formed the nucleus of the Central Training College, Lahore. Both these institutions, however, admitted graduates and undergraduates in the same class. The courses included what the teachers had to teach in schools and very little of professional subjects.

During this period, it was held that (i) all teachers of high schools would be graduates at least and (ii) a graduate does not need any professional training to make him a good teacher. But as a sufficient number of graduate teachers were not available, undergraduates had to be employed. Bombay adopted a novel method of equipping matriculate and undergraduate teachers. In Government schools, it was laid down that all teachers of English must hold a certificate of competency from an inspector and headmasters were required to impart some knowledge of teaching to their assistants. A convention was also laid down that the new recruits to the cadre of secondary teachers should be required to serve for a time in the more important Government high schools in order that they might learn their duties under the eye of the most experienced headmasters¹³. It was, therefore, argued that :

The first grade high schools discharge the functions of secondary training colleges ; and the experience of the last 15 years appears to prove that this economical system meets all the requirements of the smaller secondary schools without weakening the teaching staff of any of the larger institutions¹⁴.

In so far as the aided schools were concerned, a rule was laid down that the headmasters must be university graduates and it was expected that they would train their matriculate and undergraduate assistants in the same way as the headmasters of Government schools did.

12 Proceedings of the First Conference of Training Colleges in India. Baroda, Faculty of Education & Psychology, 1951. p. 22-23.

13 A Review of Education in Bombay State, 1855-1955. op. cit. p. 282.

14 Report of the Bombay Provincial Committee of the Indian Education Commission, 1882. p. 125.

FROM HUNTER COMMISSION TO LORD CURZON

The training of secondary teachers could not thus take a definite shape in the preceding period, as it was felt that only university graduates should be employed as secondary teachers, and that they did not need any professional training as they had a good general education. There was also a good deal of controversy regarding the training of secondary teachers in England too, and its echo was heard in India. In that country, while one school believed in the French ideology, the other swore by the German. The French education held that a normal school should aim at 'giving the pupil thorough instruction much more in the subjects which he is intended to teach, and in those allied subjects which will enable him to teach them with greater fullness, insight and power, than in the methods of teaching them and the professional art of the teacher.' In contrast to the French philosophy, the German practice laid a great emphasis on the study of the principles and practice of teaching.

The influence of the controversy was felt in India too, and opinions were divided on the content of teacher education. While one school believed in equipping the teacher with the knowledge of the subjects he was expected to teach, the other school advocated the study of the principles and practice of teaching at a training institution.

This was the state of affairs, when the Indian Education Commission of 1882 was appointed. It referred to the conflict of opinion upon the fundamental principle on the content of teacher education and to the diversity of practice which prevailed; and, while hesitating to lay down a general rule requiring secondary teachers to be trained, recommended 'as an inadequate, but the only practicable alternative,' that an examination in the principles and practice of teaching should be instituted, the success in which should hereafter be made a condition of permanent employment as a teacher in a secondary school.¹⁵

The Commission further recognized the need for giving a separate and distinct type of training to graduate and matriculate teachers both in regard to the course of training and the syllabus. The Government of India also began to suggest that regular provision for the training of secondary teachers should be made. In 1887, for instance, the Governor-General-in-Council declared that, 'in the truest interest of education..... Colleges for teachers of English.....should be regarded as the first charge on the educational grant.'¹⁶ Again in 1889, it was declared that

15 Report of the Indian Education Commission, 1882. p.254.

16 Government of India. Progress of Education in India, 1887-92, Vol.1. p.213.

"the Governor-General-in-Council considers it impossible to secure good instructors without such a process of selection and preparation as a 'Normal Training School' gives and is unable to regard the adoption of examination in the art of teaching as an adequate substitution for good normal schools. His Excellency-in-Council, therefore, deems it essential that each Local Government should accept the responsibility of providing means for training teachers for each grade of schools—primary, middle and high—as a first charge on the educational grant"¹⁷.

Similar statements were repeated again in the following quinquennium. The Provincial Governments were thus forced to take proper steps. In 1886, the Madras Normal school was raised to the status of a college and was affiliated to the Madras University. It was removed to Saidapet in 1887. The Lahore College was also shifted to its present site in the same year. A secondary department was opened in the Nagpur Training School in 1889, but the Department was transferred to Jabalpure in 1902 and a model school was attached to it very shortly. A training college was established at Rajahmundry in 1894. It then consisted of the L.T., Upper Secondary, Lower Secondary, and the Primary Departments. A small training class was started at Kurseong in 1899. A training college was also opened at Lucknow, but was transferred to Allahabad. Thus there were 6 training colleges in 1901-02, but the Madras University alone granted a degree (L.T.) in Education. The strength of these institutions is given in the following table :

TABLE 1*

ENROLMENT IN TRAINING COLLEGES, 1896-97 TO 1901-02

Inst itution	1896-97	1901-02	
		Total Strength	Girls
Saidapet and Rajmundry Colleges ...	58	74	2
Kurseong College ...	—	—	9
Allahabad College ...	28	24	—
Lahore College ...	82	76	—
Collegiate Branch, Jabalpure ...	17	14	—

. 17 Ibid. p.214.

*Government of India. Progress of Education in India, 1897-98 to 1901-02. Vol. II. p.87.

The students were graduates, undergraduates and even matriculates. It is also interesting to study the curriculum, prescribed for graduates in the institutions. The details are given below :

1. Teachers' College, Saidapet and Training College, Rajamundry : (i) Principles of Education, (ii) History of Education. (iii) Methods of Teaching and Management. (iv) Reading and Recitation. (v) Black-board Exercises. (vi) Freehand Drawing.

2. Kurseong Training College : (i) Art of Teaching, (ii) Discipline and Organization. (iii) Kindergarten Methods.

3. Allahabad Training College : (i) English Reading and Conversation. (ii) Mathematics, (iii) One of the following : (a) English. (b) Science (c) Classical Language. (iv) School Management and Criticism Lessons. (v) Practical Teaching.

4. Central Training College, Lahore : (i) English, (ii) Mathematics, (iii) Elementary Science, (iv) School Management, (v) Practice of Teaching.

5. Collegiate Branch of the Jabalpure Training Institution : (i) Principles of Education, (ii) History of Education, (iii) Practice of Education : (a) Organization, (b) Methods of Teaching, (c) Discipline.

In addition to the above institutions, a number of training schools were also established for the professional education of matriculate teachers. It may, however, be noted that Bombay had no training institutions for English or secondary teachers. The Province did not introduce full-time training, but it started the Secondary Teachers' Certificate Examination (S.T.C.) in 1899. It was managed centrally from the office of the Director of Education and was conducted by the Divisional Inspectors and the printed question papers were to be the same for all the divisions. The Examination consisted of two parts : (i) theory of teaching; and (ii) practice of teaching. For the former, the candidates were to read three books prescribed by the Department; and for the latter, they were to be examined by the Inspectors in class teaching and class discipline. The Examination was open to graduates as well as to those who had passed the University Entrance Examination or the School Final, provided that they were teachers in Government or recognised schools¹⁸.

Thus by 1902, the need for giving professional training to secondary teachers was fully recognized. Bombay was the only province that had not organized a training institution for secondary teachers. The position of teacher training for the entire country can be appreciated from the following extract of an official report :

The total number of teacher training institutions comprises 6 English colleges or collegiate classes, 50 secondary teachers' schools, and 54 primary teachers' schools. Speaking generally the colleges train teachers for the high departments of secondary schools; the secondary schools, teachers for the high, middle or primary departments of English or vernacular secondary schools; and the primary schools, teachers for primary schools or primary teachers in secondary schools. All the colleges and 76 of the schools are maintained by the Government, one school belongs to a Native State, and the remaining training institutions are mission schools, and all but 4 of them are aided.¹⁹

FROM LORD CURZON TO SADLER COMMISSION

It was during the viceroyalty of Lord Curzon that the training of secondary teachers was reviewed critically, and steps were taken to improve this branch of education. The Government of India's Resolution on Educational Policy, 1904, boldly declared :

If the teaching in secondary schools is to be raised to a higher level—if the pupils are to be cured of their tendency to rely upon learning notes and text-books by heart, if, in a word, European knowledge is to be diffused by the methods proper to it,—then it is most necessary that the teachers should themselves be trained in the art of teaching.²⁰

The Policy then laid down certain definite principles for reforming the system of training of secondary teachers in the country. In the first place, it drew the attention of the Provincial Governments to the need of recruiting a well-trained staff with experience in the work of higher training for the teachers colleges. It further suggested that every training college should be properly equipped and should be furnished with a library and a museum. In order to coordinate theory with practice, it clearly pointed out the need for a practising school to be attached to a teachers college and to be under the control of the same authority. The policy then defined the nature of training courses for the graduates and others. It recommended :

For graduates, the training course should be a one-year university course, leading to a university degree or diploma. The course should be chiefly directed towards imparting to them a knowledge of the principles which underlie the art of teaching and some degree of technical skill in the practice of art. For others, it should be a two-year course, embracing the extension, consolidation and revision of their general studies to make them capable teachers.²¹

19 Government of India. Progress of Education in India, 1897-98 to 1901-02. Vol. I. p. 197.

20 Government of India's Resolution on Educational Policy, 1904. para.38.

21 Ibid., para. 39.

It is interesting to note that this document also appreciated the need for in-service education of teachers. It considered it necessary for the training college to maintain a close relation with the school, so that the student on leaving the college and entering upon his career as a teacher may not neglect to practise the methods which he has been taught.²² It further suggested that the old students of a training college should be occasionally brought together again and that the inspecting staff should cooperate with the college authorities in seeing that the influence of the college makes itself felt in the schools.

Certain definite results accrued from the recommendations of this famous official document. In the first place, it ended the controversy regarding the content of the teacher education programme. It definitely laid down that without a grounding in the general principles of teaching, no amount of knowledge of the subject-matter can help a teacher of secondary schools to teach successfully. Further, it fixed a general principle regarding the training of graduates and non-graduates. It laid down that the training of graduates and the training of non-graduates should be different in three respects, viz., (i) the subject-matter of the course, (ii) its length, and (iii) the authority by which the certificate of training is issued. As the Government of India's Fifth Quinquennial Report points out:

Where this principle is carried out, the graduates receive only training in theory and practice of teaching, whereas the non-graduates follow a course which embraces also the extension, consolidation and revision of their general studies. For graduates one year's course suffices, for non-graduates two years' course is required. For graduates, the course may be laid down by the university and lead to a university degree or diploma; for the training of non-graduates, the scheme of training should be determined by the authorities of the training college and by the Education Department, and the certificate should be awarded by an examination held by the same authorities, and the students under training should not be prepared for any higher external examination.²³

This momentous declaration of Lord Curzon was followed by a policy of awarding central grants to provincial governments for expenditure on education. Teacher education also received a share of these grants. This policy was initiated by Lord Curzon and was kept up by his successors.

These steps accelerated the growth of the training of secondary teachers in this country. A Secondary Training College was founded in

22 *loc. cit.*

23 *Progress of Education in India, 1902-07, Vol. I, p 215.*

Bombay in 1906 and prepared secondary teachers for its own diploma known as the S.T.C.D., until it was affiliated to the University of Bombay in 1922, for teaching courses leading to the B.T. degree. In July, 1908 the David Hare Training College, Calcutta, was opened in the building which was at one time occupied by the Albert College. It prepared students for a degree course (B.T.) for graduates and Licentiate Course (L.T.) for Intermediate passed teachers, each extending over one academic year. The Patna Training College was opened in October 1908, when it prepared candidates for the L.T. degree. In 1915-16, two classes were opened in the institution, one for the B.T. degree and the other for the L.T. examination. In 1910, the Dacca Training College was established. The Training Institute at Jabalpure was reorganized in 1911, and a year later it was affiliated to the Allahabad University for the L.T. degree.

All the universities save that of Bombay instituted and prepared their students for degrees or diplomas for those who intended to follow the profession of teaching. In the case of the universities of Madras, Lahore and Allahabad, the course was purely a post-graduate one. In addition to the B.T. degree, the Calcutta University also offered a Licentiate in Teaching for those who had passed the Intermediate. The training colleges at Lahore and Jabalpure also conducted courses for the undergraduates, which were controlled by the Department of Education. In other words, the colleges sometimes followed the university course, sometimes only a departmental course and sometimes both. Thus the general principle initiated by the Resolution of 1904 was not fully carried out.²⁴

It is also interesting to study the programme followed for training graduate teachers. Some idea can be formed from the following quotation showing what the Secondary Training College, Bombay, was doing :

The study of general educational problems is not encouraged except so far as they appear in connection with history of education...Students are warned against over-reading, especially the reading of books narrowly educational...The only books prescribed are Quick's *Educational Reformers* and Sully's *Psychology for Teachers*. A course of teachers on school equipment lasts almost the whole year ...During the first term, an hour a week is devoted to blackboard writing and an hour a week is devoted to phonetics and elocution during the whole year, special attention being given to the delivery of poetry.....Demonstration by the staff and criticism lessons by students are given throughout the year.²⁵

24 Supra. p. 12.

25 Bombay Government. Report of the Director of Public Instruction, 1912-17. pp. 75-76.

The policy, initiated by the Resolution of 1904, was further strengthened by the government declaration of the Government of India's Resolution on Educational Policy, 1913. It clearly pointed out :

Few reforms are more urgently needed than the extension and improvement of the training of teachers. The object must be already kept in view that eventually under modern systems of education no teacher should be allowed to teach without a certificate that he is qualified to do so.²⁶

Regarding the training of secondary teachers, it laid special emphasis on a free interchange of ideas based on the success and failure of different experiments in the field in India and abroad. It suggested that selected members of the staff of one college should visit other institutions. It stressed on a close study: (i) the best size for the practising school and the relation between it and the training college, (ii) the nature of, and the most suitable methods of procedure in, practical work, (iii) the relative study of methodology and psychological study, (iv) the best treatment of educational history, (v) the extent to which it is desirable to include courses in the subject-matter in the scheme of training, and similar other allied problems.²⁷

Soon after the publication of the above Resolution, the Government of India issued a circular letter on 30th August, 1916, to Provincial Governments pointing out the inadequacy of the arrangements in many provinces for the training of teachers for secondary and primary schools and suggesting as a minimum standard that the training of teachers to be trained in each year should not be less than the number of new teachers whom it is necessary to provide in order to take the place of those who have died or in order to meet the demands created by the extension of education.²⁸ This circular was followed by the announcement of a grant of Rs. 30 lakhs.

In 1917 the Government of India appointed a Commission for suggesting measures for reforming the Calcutta University. Sir Michael Sadler, the Vice-Chancellor of the Leeds University, was its Chairman. Hence the commission is popularly known as the Sadler Commission. The Commission made a number of recommendations, which concerned the entire country.

Regarding teacher education, it suggested that a Department of Education should be set up in each university with a professor of

26 The Government of India's Resolution on Educational Policy, 1913. para. 51.

27 Ibid. para. 52.

28 Progress of Education in India, 1912-17. Vol I pp.158-59.

education as its head. The Commission felt that a University Department of Education occupies a unique position, since its students are brought into contact with others who work on problems in psychology, in economics, in history and in various branches of science including medicine. It was rightly pointed out :

In a centre at which all are represented the study of education is stimulated and guided by many converging influences, which....suggest new lines of enquiry, indicate methods of scientific investigation.... Done under these conditions and with the collaboration which these conditions allow and encourage, the work of the university departments of education has been of fundamental importance in its influence upon the course of legislation, upon educational administration and upon public opinion.²⁹

The Commission further suggested the need for attaching a small experimental school in addition to a large practising school to a training college ; the first, to provide opportunity for educational experiments and for the trial of new methods and courses of instruction; the second to accustom the students in training to the methods which should be used in every good school under normal conditions of work. Thus the Commission drew a clear line of demarcation showing the objectives of these two types of schools.

Another important recommendation was the inclusion of Education as a subject (a) in one of the courses of study at intermediate colleges, and (b) in some of the groups approved for the B.A. pass degree. The Commission also recommended that a B.T. should be allowed to present himself, after a subsequent course of instruction extending over two years, for the examination for the M.A. degree; and that the principles and history of education should be added to the list of subjects in which any candidate may present himself for that degree.³⁰

⁴Thus the Sadler Commission suggested four main measures for improving the training of secondary teachers : (i) The organization of a Department of Education at the University level, (ii) the institution of a Master's Course in Education ; (iii) the introduction of Education as a subject for study both at the B.A. and the Intermediate levels; and (iv) the setting up of an experimental high school to be attached to a training college.

29 The Calcutta University Commission's Report, Vol. V, p.73.

30 Ibid. p.94.

FROM SADLER COMMISSION TO INDEPENDENCE

Thus the period 1904-19 marked a great advance in respect of the facilities for the training of secondary teachers. But still the licenced teachers had a hard battle to fight, as even educated persons largely believed that teachers are born and they cannot be made. As an official report rightly remarked, 'The trained teachers go forth as ardent reformers to schools where modern ideas are regarded as heresies and innovations viewed with distrust. This is likely to continue till there has arisen a generation of college trained headmasters and deputy inspectors.'³¹

The position of trained teachers in secondary schools in the beginning of this period is also interesting. The following quotation from the Quinquennial Review of the Progress of Education in India, 1917-22, describes the position as it was in 1921-22 :

In no feature of their secondary education systems do the provinces differ more than in their employment of trained teachers in secondary schools. In government schools in U.P two-thirds of the teachers are trained and the proportion of the trained to the untrained teachers in secondary schools under private management is about 1 to 18.

In Bombay a percentage of 24.1 of the total number of teachers is shown as trained; but every teacher who passes the Secondary Teachers Certificate Examination is returned as trained.....In Madras, of 7,184 teachers employed in secondary schools no less than, 4,954 possess professional certificates.....In C.P., the increase in the percentage of trained teachers in high schools from 26.5 to 67.5 is remarkable On the other hand in Bihar and Orissa only 146 out of a total of 1,774 teachers of English and Classics are trained. The case of Bengal is similar. The number of Anglo-Vernacular teachers and teachers of classical languages in all secondary schools is 12,906, out of whom only 357 are trained though 3,392 are graduates.³²

The problem of an adequate supply of trained teachers attracted the attention of the country as early as 1922, and the problem was intensified by the rapid extension of schools and increase of scholars in all grades of institutions. The general dearth of all grades of trained teachers led to the setting up of various kinds of institutions such as temporary training centres, training classes attached to ordinary schools and colleges in addition to new training schools and colleges. The following statistics will give an idea of the gradual development :

31 Progress of Education in India, 1912-17, Vol. II, p. 178.

32 Progress of Education in India, 1917-22, Vol. I, pp. 94-5.

TABLE 2*

TRAINING TEACHERS IN BRITISH INDIA, 1921-22 TO 1945-46.

Sr No	In titution	1921-22	1926-27	1931-32	1936-37	1942-43	1945-46
1.	Training Colleges for Men	17 1,190	15 1,142	17 1,425	17 1,488	22 1,887	22 1,735
2.	Training Colleges for Women	3 57	6 115	7 157	8 301	13 767	16 880
3.	Training Schools for Men	926 22,774	529 21,610	475 21,823	346 19,975	380 22,084	394 21,938
4.	Training Schools for Women	146 4,157	166 4,664	209 6,945	217 7,379	207 9,305	193 9,448

In the above table, the training institutions have been classified into training colleges and training schools, for men as well as for women. This classification, however, scarcely gives an adequate idea of all the different classes attached to training institutions in the provinces, which were variously called college, secondary, anglo-vernacular, vernacular, senior anglo-vernacular, primary, higher, elementary, lower elementary, and 'guru' training classes. In most provinces, graduate teachers proposing to teach in high schools were trained in colleges, but in some provinces secondary training schools provided training for graduates as well as for undergraduate teachers. With the advent of Basic education, new colleges had to be established for teachers for the Senior Basic stage, lecturers for Basic training schools and administrators for Basic education.

There was, however, a good deal of confusion regarding names and nomenclature of different training degrees and diplomas. Even the same province had four kinds of awards for the same grade of training, viz., the Bachelor of Teaching or Education, Graduates' Diploma in Basic Education, the Licentiate in Teaching, and sometimes also the Senior Anglo-Vernacular Certificate S.A.V. Thus the secondary training did not have the same connotation in all the provinces. The Decennium

*S.N. Misra, *History of Education in India*, First Edn. Baroda, Acharya Book Depot, 1950, p. 391.

The numerators indicate the number of institutions and the denominators, the enrolment of students.

Review of the *Progress of Education, 1937-47*, observed 'Such a diversity is confusing and calls for a uniform organization of teachers' training, a proper coordination of courses, if possible, also a uniform nomenclature'.³³

The total number of teachers, trained and untrained, increased both at the high and middle school stages. But while the percentage of trained high school teachers showed a slight increase, that of the middle school showed a distinct fall. This will be evident from the following table:

TABLE 3^a
TEACHERS IN MIDDLE AND HIGH SCHOOLS, INDIA, 1936-37 TO 1946-47

School	1936-37			1946-47		
	Number of Teachers	Number of Trained Teachers	Percentage of Trained Teachers	Number of Teachers	Number of Trained Teachers	Percentage of Trained Teachers
M. Schools	55,915	37,016	66.	72,413	42,742	59.06
H. Schools	56,813	27,823	49.9	45,263	87,862	51.7

But at the same time, new trends were noticeable in the field of secondary training. Attention was paid to some of the main recommendations of the Sadler Commission. Some of the universities introduced Education as a subject in the B.A. and Intermediate courses. The movement of setting up either a Department of Education or an independent teacher's college in the universities began. Aligarh and Banaras took the lead, and others followed. Provision was also made for post-graduate courses. For example, the Bombay University instituted the M.Ed. degree (by research) in 1936, and Ph.D. degree (in Education) in 1941. In 1949, as many as 16 universities had provided for the M.Ed. courses. Their names are: Aligarh, Allahabad, Andhra, Banaras, Baroda, Bombay, Delhi, Karnatak, Lucknow, Madras, Mysore, Nagpur, Osmania, Patna, Poona, and Saugar.³⁴

Besides these direct results, the Calcutta University Commission also helped teacher education of this country indirectly in another way. The Commission's Report attracted the attention not only of the actual workers in the field but also of a band of promising young men of this country. It encouraged them to go to U.K., U.S.A., and Germany to

^aCompiled from *Progress of Education in India, 1936-47*, Vol. I, pp. 83-93

³³ *Progress of Education in India, 1937-47*, Vol. I, p. 127.

³⁴ *The Proceedings of the First Conference of Training Colleges in India*, op. cit. p. 49.

learn about new developments in educational philosophy, psychology, practices, and methods. Through them, these currents found their way into teacher training institutions. Till 1935, the training of teachers in this country was controlled entirely by British administrators and officers of the Department of Education. But during the last twenty-five years, the philosophy and practices of teacher education of this country is being shaped by Indian educational leaders themselves.

In spite of these developments, the courses had become stereotyped. The Indian University Education Commission 1948-49, remarked, 'There is not much of variation between the courses prescribed in the different institutions'.³⁵ The courses for the B.T. and B.Ed. degree in different universities were more or less uniform. They included compulsory papers on the Principles of Education, Methods of Teaching, History of Education, School Management and Hygiene, provision being also made for practical teaching. While the training for the written papers followed more or less the same lines in all universities, there was some variation about the practical work. While some universities insisted on 60 supervised lessons, others did not insist on more than ten. It may also be noted that some of the new training colleges did not have their own practising schools.

TEACHER EDUCATION SINCE 1949

Since independence, there has been both quantitative and qualitative improvement in secondary education. The total number of secondary schools increased from 5,297 in 1946-47 to 16,600 in 1960-61. It is expected to rise further to 21,800 by 1965-66. The number of students has also risen from 8,70,000 in 1946-47 (or 3.8 per cent. of the children in the age-group 14-17) to 2.91 million or 11.5 per cent. in 1960-61. It is expected to rise further to 4.56 million or 15.6 per cent. by 1965-66.³⁶

Besides the quantitative expansion, a comprehensive programme of qualitative improvement has also been in progress. It includes: the conversion of high schools into higher secondary schools; the organization of multipurpose schools with seven diversified courses, viz., humanities, science, technical, commerce, agriculture, fine arts, and home science; introduction of a craft; increased facilities for science education; provision for educational and vocational guidance; an intensive drive for examination reforms, and similar other measures.

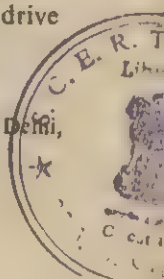
35 The Report of the University Commission, 1948-49. p. 210.

36 Government of India. Review of Education in India, 1947-61. New Delhi, National Council of Educational Research and Training, 1961. p. vii.

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These new developments have resulted in a sharp demand for trained teachers, improvement of teacher education programmes, training of teachers for multipurpose schools, training of teachers for English, Science and Hindi, provision of special courses for guidance, educational administration, etc. The organization of University Departments of Education encouraged educational research and publications, and post-graduate studies. The need for in-service education of secondary teachers has also been fully recognized, and a comprehensive programme for this purpose has been put into action.

Since independence, the number of training institutions has increased considerably. These institutions are of two types: (a) training colleges for graduates and (b) training schools or colleges for non-graduates (matriculates and intermediate). The first type of institutions prepares teachers for high schools, and the second type for middle schools. It is very difficult to give a correct idea of teacher-training institutions for undergraduates, since a number of normal or training schools for primary teachers trained matriculates.

There are at present (1963-64) 242 secondary training colleges in India. Out of which 74 are government institution, 27 university departments/colleges, and 142 private colleges.³⁷ With the exception of a few institutions, practically all the colleges are affiliated to universities. The Secondary Education Commission held that the 'Graduate teaching-training institutions should be recognized and affiliated to the Universities'.³⁸ This recommendation has been generally accepted. The majority of unaffiliated institutions are in U.P.

During 1962-63, there were as many as 3,59,672 high higher secondary school teachers in the country—2,81,012 men and 78,660 women. Of these as many as 2,36,975 or approximately 65·8 per cent. were trained. It is interesting to note that as against 73·9 per cent. of women trained teachers only 60·3 per cent. of male teachers were trained.³⁹

So far as the training of matriculates and undergraduates, the position is unsatisfactory. Whereas most of our universities have Training Departments exclusively devoted to the training of graduate teachers, and State Governments have been playing a good deal of attention to the training of primary teachers, the question of the training of undergraduate teachers for service in secondary schools has become the

37 Statistic supplied by DEPSE.

38 Secondary Education Commission's Report p. 185.

39 Indian Ministry of Education. Selected Educational Statistics, 1962-63. unpublished Report, 1964 p. 6

Cinderella of our teacher-education programme. It should, however, be recognized that the training of undergraduate teachers constitutes an important link between the training of graduate teachers on one hand and that of primary teachers on the other.

The duration of training of undergraduate teachers is of one or two years, and the successful trainees are awarded a certificate or a diploma either by a university or a State Government. For example, the universities of Baroda, Bombay, Gujarat, Karnatak, Poona, Nagpur, Jabalpur, and Sauger provide for courses leading to the examination for a diploma (T.D. in the first five universities and Dip. T. in the last three universities). While the T.D. course is of a year's duration, the Dip. T. course is of two years' duration. The Calcutta University conducts the L.T. diploma course of one year's duration for intermediates. A number of States conduct their own examinations for matriculate teachers, viz., Bihar, Orissa, U.P., Punjab, Andhra, Kerala, W. Bengal and Mysore. It is striking to note that the State Governments of Gujarat and Maharashtra still hold the S.T.C. examination for graduate and undergraduate teachers who do not receive training as regular teachers.

During 1962-63, the total number of teachers working in middle Senior Basic schools was 4,20,744--3,16,158 men and 1,04,586 women. Of these as many as 1,93,728 or 70.2 per cent. were trained. While 76.5 per cent. of women teachers were trained, only 68.7 per cent. of male teachers were considered as trained.⁴⁰

REVISION OF THE B. ED. COURSE

The most remarkable feature of the period is the revision of the B. Ed. or B.T. course. Attention of Indian educationists to the limitations of this course was first drawn in 1949 by the Sargent Report. It remarked, 'The type of training given under this course fails to keep pace with modern ideas in education and there is insufficient coordination between theory and practice'.⁴¹ Five years later, the Indian University Education Commission made the following useful suggestions :

1. The courses should be remodelled and more time given to school practice and more weight should be given to school practice in assessing the students' performances.
2. Suitable schools should be used for teaching practice.
3. Students should be encouraged to fall in with the current practice of a school and make the best of it.

40 Loc. Cit p. 6.

41 The Sargent Report, p. 59-60

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4. The courses on the theory of education should be flexible and adaptable to local circumstances.⁴²

The Secondary Education Commission stressed on the need for widening the scope of practical training. It suggested that, it should consist not only of practice in teaching, observation, demonstration and criticism of lessons, but should include such subjects as construction and administration of scholastics tests, organization of supervised study and students' societies, conducting library periods and maintenance of cumulative records.⁴³

Ultimately, the Indian Ministry of Education appointed a committee to revise the existing B.Ed. syllabus. While inaugurating the first meeting of the Committee on August 7, 1956, Sri K.G. Saiyidain, the then Educational Adviser, drew attention of the committee to the following two basic points to be borne in mind while preparing a model syllabus:

1. Whatever knowledge is imparted to the trainees should have a direct bearing on the day-to-day school problems.

2. It should be the endeavour of every teacher in a training college to link up his theoretical work with the new socio-economic forces that are operative in the national life. Unless that is done, the training will lose much of its significance and the trainee will find it difficult to develop a complete and coherent picture of life.⁴⁴

The working of the Committee was guided by the above two objectives, and the reorganized B.Ed. course as outlined by the Committee consists of :

I. Theory (4 papers): (1) Principles of Education and School Organization, (2) Educational Psychology and Health Education, (3) Methods of Teaching School Subjects, and (4) Section A—Current Problems in Indian Education, and Section B—A Special Study of *one* of the following: School Library Organisation, Educational and Vocational Guidance, School Administration, Education of Backward Children, Rural Education, Audio-Visual Education, Mental Measurement, Physical Education, Organisation of Co-curricular Activities, Social Education etc.

II. Practical work consisting of (1) practice teaching, (2) observation of lessons, (3) criticism lessons, (4) study of different types and grades of schools, (5) organisation of and participation in co-curricular activities, (6) follow-up by trainees of assignments given to school children and correction

42 Indian University Commission's Report, 1948-49. p. 217

43 Secondary Education Commission's Report. pp. 176-77.

44 Ministry of Education, Secondary Education, October, 1956, p. 9.

of their home work, (7) making a case study, (8) preparation and use of audio-visual aids.⁴⁵

Thus the Committee's objectives are three-fold: (i) reduction of the bulk of the theory-course, (ii) training every candidate in a special branch and (iii) widening the scope of practical work. The majority of teachers' colleges have revised their B.Ed. programmes on the suggested lines.

POST-GRADUATE STUDIES AND RESEARCH.

The post-graduate degrees in India are of three types. There is first, the M.Ed. degree by papers. In some of the universities, candidates have to write a dissertation in lieu of some papers. While this is optional in some of the universities, it is a compulsory requirement in others. Next, there is the M.Ed. by entire thesis. Here the candidates have not to appear in papers at all. Finally, there is the highest level of research undertaken by candidates who prepare for the Ph.D. degree in Education.

But the position of the post-graduate teaching was not very happy in the beginning of this period, and the University Education Commission remarked, 'There is not much systematic research in Education going on in India today'.⁴⁶ The second Conference of the Association of Training Colleges in India in 1951 took up an intensive study of the courses leading to the M.Ed. degree and Educational Research in various Indian universities. The problem was again examined in the Chandigarh session of the Association in 1958, and again in 1961 at Bangalore. But not much leeway was made. The U.G.C. has also set up a Committee to examine the problem.

In the meanwhile, some of the universities have revised their courses. For example, the new M.Ed. syllabus of the Baroda University requires a candidate to undergo a regular course of study for two academic years, take an examination carrying 600 marks besides a *viva voce* test carrying 100 marks and write a dissertation which will be equivalent to the work-load of 200 marks but will be marked on a four-point scale. The compulsory papers will comprise: (1) Philosophical and Sociological foundations of education. (2) Psychological Foundations of Education. (3) Comparative Education. (4) Methodology of Educational Research and Fieldwork thereon. Every candidate will offer two papers from one of the following six optional groups :

⁴⁵ Ibid., p. 10.

⁴⁶ University Education Commission's Report, 1948-49. p. 215.

- Group A: History of Education and Educational Thought.
- Group B: Administration of Education.
- Group C: Curriculum and Teaching.
- Group D: Teacher Education.
- Group E: Experimental Education.
- Group F: Guidance and Counselling.⁴⁷

The dissertation will be on any educational topic approved by the Board of Studies in Education and will be equivalent to the work on two papers.

The *viva voce* test will aim at (i) obtaining clarifications of ambiguities and omissions in the answer-books of the candidate, his fieldwork, essays and dissertation; (ii) estimating the nature and extent of the candidate's reading and understanding of books in the subjects of study; and (iii) evaluating his achievement as a whole with a view to moderating the marks awarded in written papers and grades in dissertation if necessary.

So far as the M.Ed. by thesis is concerned, the present practice is to abolish the course. This is on the suggestion of the U.G.C., which has given a directive to Indian universities to abolish all masters' courses to be done entirely by thesis. The researches and experiments done at the Ph.D. level are not appreciable though provision exists for such studies in a number of universities. During 1959-60, hardly 101 students were enrolled as students of the doctorate degree in education in various Indian universities. The following are the details: Banaras 4, Baroda 29, Bombay 23, Delhi 16, Gujarat 1, Jabalpur 9, Kerala 4, Nagpur 4, Poona 5 and Saugar 6.⁴⁸

In 1953-54, the Indian Ministry of Education initiated a scheme for giving grants to Teacher Training Colleges and Departments of Education in the Universities in order to enable them to carry out research on educational problems chosen by them and approved by the Central Ministry. The main purpose of the scheme is to provide facilities for research which, in many instances, has been held up owing to dearth of funds. It is to be carried on by the staff of the Training Colleges assisted by some research fellows assigned to them and some financial facilities, equipment are provided to facilitate the completion of the projects. This measure has given a great impetus to research in education. The University Grants Commission also finances a few research schemes on

47 M.S. University of Baroda, Prospectus of Faculty of Education & Psychology, 1963-64. p. 16.

48 Ministry of Education. Education in Universities in India, Delhi. Manager of Publications, 1963. pp. 56-57.

education, and some of the universities have also their own research projects and experiments in education.

The need for coordinating research work going on in different parts of India was felt long ago. As early as 1949, the Indian University Education Commission remarked, 'The original work by professors and lecturers in Education is sometimes of high quality, but it seems to suffer, so far, from isolation and lack of inter-university planning'.⁴⁹ The Commission hoped that the Central Institute of Education will take up the responsibility.

In the meanwhile as education has expanded in its range and deepened in content and purposes from Plan to Plan, new problems have arisen and the need to tackle them effectively has grown in urgency. Free India realized the need to evolve a national system of education nourished by the best in cultural heritage and adapted to the requirements of a developing economy and technological age. With a view to fulfilling these needs, the Indian Ministry of Education organized the National Council of Educational Research and Training and, the National Institute of Education was born. The Council was registered as an autonomous organization in 1961. It has set before itself three important tasks :

1. To conduct research in educational problems in association with universities and other learned bodies.
2. To carry the findings of research to the schools and other educational institutions.
3. To train personnel for the higher level of responsibilities.⁵⁰

Another landmark in the improvement of standards of teaching and research in Indian universities is the recent policy of the University Grants Commission of setting up centres for advanced study in different branches of knowledge. These centres are intended to encourage the 'pursuit of excellence' and to accelerate the attainment of international standard through team work. The Commission intends to develop 20 to 30 such centres in various fields of learning in the next few years and watch the experiment carefully with a view to establishing more of such centres at appropriate places.⁵¹

The Commission has selected the Faculty of Education and Psychology, Baroda as the Centre for Advanced Study in Education. This Centre will function on an all-India basis and will aim at raising

49 The Report of the University Education Commission, p. 216.

50 N.I.E. News, Vol. I, No. I, October 1962. p.2.

51 University Grants Commission. Report for the year. 1962-63. New Delhi, Manager of Publication 1964. p.14.

standards of teaching and research in education. As an all-India institution, it will encourage team work among senior teachers and scholars throughout the country. It will also build up its programme in cooperation with research workers from outside. During the Third Plan period, the Centre intends to concentrate its attention on 'Curriculum and Instruction, Psychometrics and Research Methods, Guidance and Counselling'.

TRAINING OF TEACHERS FOR PRACTICAL STREAMS

One of the significant developments in the organization and functions of secondary education in the country during the last ten years is the multipurpose schools. As many as 2,000 such schools, offering above 3,000 courses of diversified type have been established in the country at present. In these institutions, in addition to a core curriculum which was common with other high schools, provision has been made for some of the following seven groups of electives, viz, humanities, science, technology, commerce, agriculture, fine arts and home science. Each group offered a range of 7 to 10 subjects, out of which a combination of any three could be selected according to the pupil's interest or his future.

One of the many difficulties that have hampered the success of the multipurpose schools, perhaps the most serious one has been the shortage of qualified teachers in the practical streams. This attracted the attention of the Baroda University, and as early as 1958 it made provision for the training in practical streams. The B. Ed. course of this university provides for agriculture, art education, commerce, home science, and music as special subjects. The Central and State Governments also conducted short term courses for such teachers. But these attempts were sporadic. Ultimately the Indian Ministry of Education developed a comprehensive programme for preparing teachers for the multipurpose schools during the Third Plan Period. In 1962-63, it established four regional colleges of education at Ajmer, Bhubaneswar, Bhopal and Mysore for the Northern, Eastern, Western and Southern regions respectively. The major objectives of these institutions are :

1. To develop and provide a programme of teacher education for the multipurpose schools and to prepare teachers of technical subjects, crafts, agriculture, commerce, home science, science and fine arts.

2. To provide inservice courses for the existing teachers of the practical subjects in multipurpose schools.

3. To provide inservice programmes and field services for the teachers, supervisors and administrators concerned with the multipurpose

schools in the region in which it is located.

4. To organize and develop a model demonstration multipurpose school.

5. To function as a regional centre for programmes of inservice education and field services for secondary schools in general.

6. To undertake pilot studies and research projects in the curricula, methods of teaching, and teacher education in relation to the multipurpose school as well as the general secondary schools.

Each institution will provide : (i) Four-year integrated courses for teachers of science and for teachers of technical subjects. The courses will represent a combination of specialised content, general education and pedagogy. (ii) One-year courses for graduates in technology, agriculture, home science, commerce, science and crafts. (iii) Short term inservice courses and programmes. (iv) Special courses for teachers of crafts.

TRAINING OF TEACHERS IN OTHER SUBJECTS.

The reorganized curriculam, as suggested by the Secondary Education Commission, has brought in new subjects and new approaches, which demand teachers of a different calibre. These fields are : (i) Science, (ii) English, (iii) Hindi for Non-Hindi areas, (iv) Counsellors, and (v) Educational Administration.

The Mudaliar Commission recommended that provision for the teaching of general science as a core subject should be made in every high school. Besides this course of general science, India's Five Year Plans aim at introducing science as an 'elective' subject in as many schools as possible. This requires high standards of teaching facilities which should be achieved in about 4,000 of the schools offering courses in science. But the main difficulty in expanding science teaching is the lack of adequately qualified teachers and trained teachers. Besides setting up a Central Institute of Science, the regional training colleges will be preparing science teachers. The Government of India has also placed a proposal before the Indian universities the institution of a post-graduate diploma course of a year's duration for science teachers.

For training teachers of English, the Government of India established the Central Institute of English, Hyderabad in 1958, the Ford Foundation providing assistance in the form of professor-ships and stipends to the trainees. Besides conducting short term courses, the Institute is running a year's course for teachers of English. The universities of Baroda and Gauhati also conduct a post-graduate diploma of a year's duration for English teachers.

According to the three-language formula propounded by the Central Advisory Board of Education, pupils whose mother tongue is not Hindi should learn the language and pupils whose mother tongue or regional language is Hindi should learn another Indian language. Arrangements have accordingly been made in non-Hindi areas to provide necessary training for Hindi teachers, and the Central Government bears the entire expenditure on such training. Steps are also necessary in each of the Hindi-speaking States for the teaching of an Indian language other than Hindi, if the three-language formula is to be implemented in all the States.

The organization of multipurpose schools has also made it necessary to produce career-masters and counsellors. The country needs at least 1,500 career masters and 500 whole-time counsellors. This would work out to about one counsellor for every multipurpose school which has two or more electives or has a student enrolment of about 800 and the provision of one career-master for each multipurpose school. The responsibility of organizing the training of counsellors and career-masters will have to be shouldered by the existing training colleges and Bureaus of Vocational and Educational Guidance. Steps have already been taken in this direction.

Another recent trend is the training of administrators, supervisors and inspectors. The scope of the M. Ed. courses have already been widened by a number of universities and 'Educational Administration' is a special field of study. But this course does not give the necessary training, which an administrator of education should have. Bearing this in mind, the M S University of Baroda has organized a post-graduate diploma in educational administration.

IN-SERVICE EDUCATION OF TEACHERS

Another notable feature is the introduction of a comprehensive scheme of in-service education for secondary teachers. The Secondary Education Commission observed :

However, excellent the programme of teacher training may be, it does not by itself produce an excellent teacher. It can only engender the knowledge, skills and attitudes with which the teacher begins his task with a reasonable degree of confidence and with the minimum amount of experience. Increased efficiency will come through experience critically analysed and through individual and group effort at improvement. The teacher training institutions should accept its responsibility for assisting in the in-service stage of teacher training.²⁴

As a result of the above recommendation, the Indian Ministry of Education has set up a new Department of Extension Services in a number of training colleges—24 in 1955, 54 during the Second Plan Period, and at present there are 92 Departments of Extension Services. The activities of the Extension Department can be grouped under the following heads: (i) week-end, short-term and long-term courses; (ii) workshops, seminars and group discussions; (iii) educational weeks and conventions; (iv) advisory and guidance seminars; (v) library service; (vi) audio-visual aids services; and (vii) publications.⁴⁰

CONCLUSION

Such is the brief survey of training of secondary teachers in this country. It has progressed, but the picture is not yet satisfactory. But never before have so many been actively engaged in the improvement of teacher education in India as today. The literature on how to strengthen the programme of teacher education written by Indians themselves has never been richer, nor have so many competent people ever engaged in assessing the outcomes of our educational programmes and the means for making them still better. Since World War I, hundreds of our educators have been travelling to other countries and they have returned with a first-hand knowledge of how our teachers colleges should operate.

In the midst of all this evidence of expansion, there is a strident note of criticism and dissatisfaction. Those engaged in teacher education are surrounded with complaints. They are asked to devote their attention to the quality of education, to the pursuit of excellence and to the improvement of subject-matter. They are exhorted to return to the 'good old days' when children got a 'real' education.

Fortunately, much of the criticism of education and teacher preparation stems from a sincere desire to encourage improvements. Responsible criticism must be encouraged. It is for the teacher educators to attract attention. Through constant research and critical thought, they could red out the elements essential to an ideal teaching and make them the common competencies of all those who have a sincere desire to teach.

40. Second Semester Extension in Training Colleges, Ministry of Education, Government of India, New Delhi, June-July, 1955.

CHAPTER II

PHILOSOPHY OF TEACHER-EDUCATION IN INDIA

(Dr. S. Shukla)

[WHETHER one is aware of it or not, every person is said to have a philosophy—a worldview and valuesystem—which permeates his entire behaviour pattern. So too, in education, the policy and system is governed by the philosophy we hold, albeit, unconsciously. Dr. S. Shukla, of the Central Institute of Education, has, with rare acumen, analysed and made explicit the many beliefs and guiding principles implicit in the system as it operates vis a vis teacher education. He calls into question the role of the teacher and education itself in the reconstruction of society. Educationists are illequipped to undertake what society and national leaders apparently expect them to do; a look at the whole process suggests that they never actually were supposed to take seriously what is only said in ordinary courtesy and politeness. It is time for both society and educators to think and state in unequivocal terms their mutual expectations and demands; to gear the entire education programme to the logical requirements flowing out of such conscious acceptance; for, only then can the teacher deal with the task awaiting him with sincerity and efficiency.]

Many philosophers are quite concerned at the 'popularity' of philosophy. Philosophy of education, for example, they find, is only another name for theory of education which is not adequately historical or sociological and which is inadequate as an application of philosophical thinking and findings to a study of education. It is also something quite unlike philosophy in its content as well as methods. To many, the very idea of philosophy of education or, for that matter, of philosophy of science or philosophy of history, is a wrong one. For philosophy, is philosophy, a discipline which elucidates the nature of reality, elucidates values or clarifies language and meaning, depending on the school of philosophy subscribed to. It cannot be a philosophy of science or history or education. The application of philosophical methods or findings to these fields is quite another matter and should be named as such. (These

criticisms are quite distinct from the further complaint that this task is often accomplished rather poorly by educationists.)

A philosophy of teacher education is, in this background, an even more dubious proposition. However, the lay user of language, who, after all, tends to be sovereign in these matters, is not put off so easily. To him, the philosophy of a process like history or science is the attempt to discover meanings in that process. The philosophy of an activity, e.g. education or teacher education, is the theory of doing it, in its value or normative aspects. A philosophy of teacher education in this sense would amount to answering questions such as: What is it that we wish to achieve when we educate teachers? What kinds of men and women should they become? What skills and or knowledge and or attitudes would we wish to develop? In answering these questions we need to elucidate the nature of the persons we deal with, to develop assumptions in regard to them and their learning and growing processes. This merges imperceptibly into the *science* of teacher education which, of course, we do not propose to study in its entirety, but which certainly is an aid to philosophizing about teacher-education precisely as philosophy often relies upon natural science, and its precursor, metaphysics. The philosophy of teacher education is also not unrelated to the techniques (or even the *technology*) of teacher-education in as much as techniques do have philosophical implications, both planned and unintended.

Below, we seek to elucidate the philosophies of teacher-education as expressed in teacher education practices. (from philosophical)

THE ENTRANT

The basic facts about the education of secondary teachers in India are relatively well-known and the rest of this *volume* sets them out with considerable precision and quite comprehensively.

One of the more common assumptions involved is that the intending teacher is a university graduate. This means that he is reasonably competently schooled in one or more disciplines and/or reasonably well schooled in a subject or subjects that he hopes to teach at school and/or he is a liberally educated man. This last assumption is subject to a qualification viz, that a university degree might not be providing a liberal education. Also, many graduate students entering teacher-training institutions are elementary school teachers who have taken their degree by examination as teacher candidates. Thus, to the extent a liberal education is expected to be provided in a university or a college, and there alone, they have been deprived of it.

To the extent that the training institution expects the entrant to have studied a 'school' subject such as history, it is likely to be subject-dominated in its approach to the education of teachers. On the other hand, it could well be that the institution has a different philosophy of teacher-education, but feels that the teacher who does not possess adequate mastery of a school subject, is likely to be a slave to it and to mere tricks of the trade. The teacher who is secure in his mastery of the subjects he is expected to teach is, perhaps, more likely to respond to the 'higher' though, less tangible parts of a programme of teacher-education.

There is a wide variety of procedures and criteria for admission. It is not argued here that these are always the consequence of a deliberate scheme of preference or of a considered philosophy of teacher education. They could quite often be protective mechanisms which an administration develops so as to avoid the charge of favouritism. Alternatively, they might result from an effort to respond to some universally recognized needs of the school system, e.g. for more science teachers. In many cases, however, the authorities of an institution are prepared to build up a *rationale* (or rationalization) for the procedures and criteria they adopt. Thus the use of previous academic record is justified on the same grounds as requirements relating to subjects studied for a university degree. A more sophisticated explanation for the same procedure is that academic records are an index of ability or at least an operational one indicating ability as in operation in relation to academic tasks. This view of criteria is an intermediate one between the subject-requirement criterion and the use of intelligence tests. The philosophy underlying the latter is, of course, an assumption that (cognitive) ability makes for a good teacher at school or a good learner at the training college. The two need not, indeed, mean the same thing. If, however, ability is emphasized as a criterion for admission relatively independent of subject requirements, the theory about the nature of the student-teacher has already undergone a change. It is now assumed that high ability or avoidance of low ability is the main base upon which the teacher education programme or teacher success is built.

The use of the interview is open to varying interpretations. It may emphasize intelligence, social skills or just nothing at all. It might often be used as a mere device to eliminate physically defective persons. Some institutions use group-discussion techniques, tests of sensitivity to non-verbal expression and tests of verbal expression. These could well be leading in the directions of emphasizing capacity to work in groups, or other relevant traits. The manner in which the various measures obtained

on items in an admission battery are combined and used for the purposes of an actual decision on admission *e.g.* a plain aggregate, is itself most often born out of eclecticism. One could, however, employ a firmer philosophy. Instead of totalling up all the marks obtained in various items, one could set minima on each separate item or on some of them, thus indicating the actual scale of preference adopted by the institution.

It appears, however, that though varied in their character, admission practices in training institutions are, on a national scale, leaving aside a few bolder spirits not amenable to any very sophisticated discussion which might provide clues for a philosophy of teacher-education. Marks in university examinations, background of experience in teaching, and school-subjects studied for a university degree combined with interviewing with relatively undefined purposes predominate. The implications for a philosophy of teacher-education are few, and obvious

THE PROCESS OF TEACHER-EDUCATION

Here, it is possible to distinguish a few fairly definite points of view even if they do not all inform practice equally effectively. Many philosophies of teacher-education, being new and not yet fully elaborated in terms of technique, find it hard to content with established practice. Besides, as we shall soon see, some of the older philosophies and practices find support in many elements of external society. Indeed, this fact is interestingly illustrative of the problems of inertia and change in education. Practice in secondary teacher education is, therefore, not fully representative of the diversity that these philosophies might represent. In fact, even as the newer philosophies become effective, an extreme eclecticism in attitudes at the colleges tends to ensure that the philosophical divergences will not be fully reflected in divergence in actual practices.

There are two major sources of divergence amongst philosophies of teacher-education. Philosophies differ in their concept of the teacher's task. They differ, again, as noticed earlier, in the view they take of the nature of the learner, student-teacher, and his learning process both in a descriptive or positive and in a normative or prescriptive sense.

On the issue of the nature of the teacher's task there is tension between the entrenched ideology which stresses ensuring classroom discipline on the one hand and subject-matter mastery and examination success on the other; some wider, though not so new, concepts stressing non-cognitive elements in pupil development. A full and rich personality for children passing through school, schooling as a means of adjusting children to a changed or changing society, schooling as a means of

preparing children to change society itself are illustrative of these newer concepts or aspirations. They would differ, further, as attempts are made to elaborate these statements. These differing concepts of the teacher's task involve quite different skills and attitudes for the teacher. To an extent however, these could all be consistent with a common framework for a philosophy of teacher-education, viz., the inculcation of skills and attitudes or relatively marginal variants of this basic structure. To this statement, there would be one qualification arising from that concept of the teacher's task which involves a relatively comprehensive understanding of both society and the individual as a basis for preparing children to participate in social change. This would involve intellectual preparation of a relatively thoroughgoing variety in addition to development of attitudes and skills required for participation in a changing society. However, the viewpoint advocating inculcation of skills and attitudes itself leads up to various approaches to teacher-education which are dictated primarily by views on the nature of the learner and his learning processes. There is the tradition of the government training colleges fed into the others including most of the university departments of Education. For, the staffs of the latter in their formative periods, were alumni of the former. The prestige of the State educational administration, its power as the most favoured employer, if not also sometimes benefactor through grant-in-aid, even regulator through L.T. and similar examinations, were greater than those of the university, at least in this field. In the government training colleges, the stress was on an authoritarian respect for the staff and for the administrator in day-to-day life. They emphasized rote mastery of Herbart's psychology and a theory of education based on the evolution from Plato through Rousseau to Herbert Spencer and sometimes even Dewey. The rest of the programme was designed to secure a meticulous mastery of the tricks of the trade through rigorously planned and closely supervised lessons and through practice of skills such as blackboard writing and preparation of teaching aids. Thus, talking, as it might, of the paedocentric revolution in children's education in educational theory courses, secondary teacher education took little account of the nature of *its own learner* or *his* learning process. One might characterize the underlying philosophy as the craftsman or the junior technician approach to teacher-education. It has persisted as the basic sub-stratum of all later thinking and practice in teacher-education even as diametrically opposite positions have been developed on a philosophical plane.

There is, for instance, the group of teacher-educators who take a basically psychological view of their task. The student teacher, to one variant of this point of view, is a personality in need of achieving better balance or dynamism than it has so far. This is an essential pre-condition to the acquisition even of skills which the technician philosophy of teacher-education seeks to emphasize. The therapy approach to teacher education, if we may so call it, thus does not negate the role of skills in the making of a teacher but seeks to lay a better basis for achieving them. If faced with a choice, however, it will sacrifice the development of skills to achieving a balanced personality. It is interesting to note here what the two approaches mean in terms of attitudes to be developed through teacher-education. The technician approach assumes the development of positive approaches to skills through sheer drill carried on, in presumably, an authoritarian atmosphere. The therapy approach expects to achieve this by means of an untying of the knots in the teacher's personality. Of course, the two hope to develop different attitudes in the student teacher. For, in fact, they tend to be coupled to different concepts of the teacher's task, too.

The therapy approach to teacher-education will be characterized by highly permissive atmospheres in social as well as academic and technical aspects of the training college routine, by relatively individualized methods of instructions, e.g. tutorials (of the more non-directive and free variety), by adequate time and opportunity for hobbies and interests which, however, will remain hobbies or interests and not become requirements. It is entirely possible, however, to accept these forms of tutorial, co-curricular activities, etc., but put into them the psychological content of compulsion by, for instance, allotting marks, based on internal assessment, adding into the final evaluation of the student teacher's achievement. It is, indeed, ironical but true that the 'tyranny' of the external written examination may yet be much more permissive in its effects than the 'freedom' and 'overall development of personality' which results from the introduction of internal assessments and credits for 'co-curricular' aspects of the teacher education programme. This has been happening in our country on a very large scale, as a 'progressive' measure of 'dynamization' of teacher-education.

The greater introduction of co-curricular programmes and internal assessment in teacher-education has often been represented as an

attempt at 'psychologizing' it, at developing a rounded human personality, a task which school and college should already have accomplished but have not. This is 'psychologization' in the sense of training teachers by conditioning. It has also been criticised by a minority of teacher-educators as an anti-intellectual trend in teacher education. Practical limitations of the time available may often mean that time given to 'non-intellectual' aspects of the training programme is that much time taken away from intellectual development of the teacher *provided*, as is so often the case, the 'activities' do not lead to intellectual outcomes, to thinking based on the systematization or reconstruction of experience. On the other hand, too much need not be made of this limitation. Given whatever time is available for it, an intellectual appreciation of the process of education is a function of the manner in which the teaching of the intellectual elements, is organized.

THEORETICAL ELEMENTS IN TEACHER EDUCATION

The contents and the methods of teaching of the theoretical elements are important. The relevant facts of teacher-education in India in this connection appear to be as follows : Psychology courses, when they were coherent, were based on McDougall and were taught pretty bookishly through lectures unsupported by tutorials and writing. Following upon attempts to "psychologise" teacher-education and to attend to pupil-teacher interest in the selection of content, courses have been modified in an eclectic manner to include school problems and contributions of newer thinking in psychology, e.g. personality theory, etc. As the internal coherence of the courses breaks down on the plane of ideas, it is attempted to develop coherence round the organizing centres of 'Problems'. This in itself *could* lead to some measure of intellectual training sometimes to the extent of seeing through the course which is not internally consistent theoretically ! This does not always come about. Sometimes there is too much to be done in too little time ; sometimes there is want of the theoretical erudition which the instructor needs in order to succeed in making a 'problems' course an intellectually exciting one, if at all it is possible to do so, a scepticism quite prevalent among psychologists and among many teacher-educators.

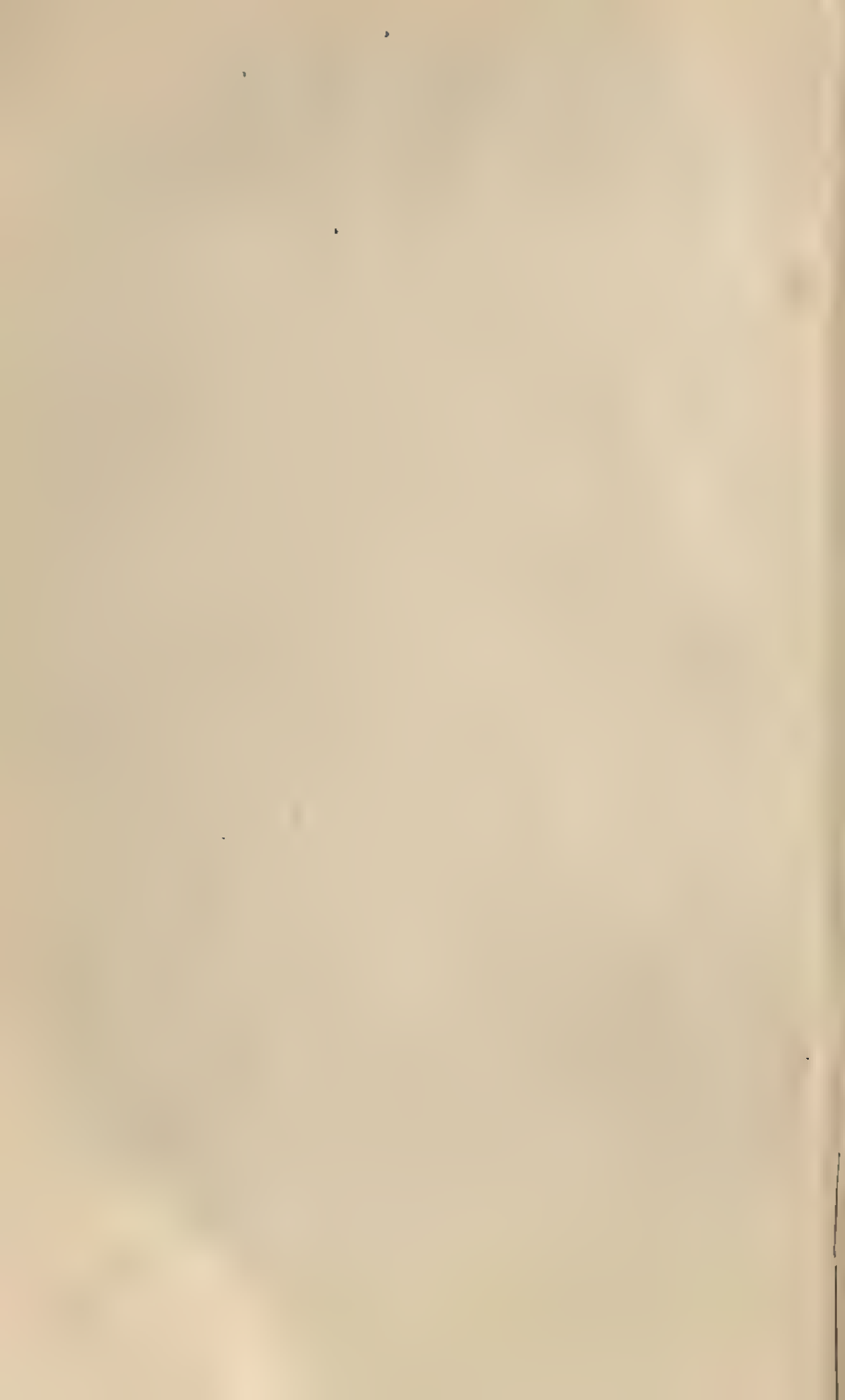
The gradual replacement of the courses in the history of Indian education, history of Western educational thought or in educational philosophy, by those in principles of education, seldom theory of education,

and problems of Indian education is similarly open to criticism as 'anti-intellectualist'. Again, it will be seen that the newer and reorganized courses are not inherently anti-intellectual but tend to become so when offered in training colleges with a craft-or technician-training type of tradition and poor levels of ability and academic aspirations. Given the necessary basis in social science and minimal philosophy, given too, the methods of instruction which encourage intellectual endeavour and, of course, higher ability among the student-body as well as staff, a condition which could perhaps partly be attained if training colleges developed a less anti-intellectual reputation, courses in problems and principles of education need not necessarily be poor in intellectual content. Again, in the increasing offerings of optional papers like co-curricular activities, audio-visual education, educational measurement, etc. but none in the history of sociology of education, or additional psychology of education, the trend is discernible of conceiving the teacher's task not so much as one of *understanding* education, as of carrying out duties in accordance with the understanding of some other people, perhaps those of the teacher-educator. In particular it is least calculated to develop teachers who would understand the society they live in, the ways in which education is related to it and who might therefore take a hand in *changing* society. This objective is not served by today's courses which are highly unanalytical and unspecific in their treatment of society. By the conditioning processes involved in the co-curricular programme, teacher-education might well be helping to *adjust* teachers to society which, indeed, is quite another matter.

In terms of its concepts of the teacher's task and the objectives of teacher education, therefore, we continue to have a relatively conservative philosophy. From *acquiescence* to *authority* as in the 'traditional' training college we might well have moved to *adjustment to group or to society* in line with the more 'progressive' ideas on teacher-education. We have not moved farther, *viz.* towards changing either education or society. The methods of conditioning adopted under the former concept tend to persist through inertia and have not been replaced with any thoroughness by those of the later 'progressive' concept. Nor do we seem to care for the student-teacher inclined to be in individualist. This is not inconsistent with the tendency of education not to initiate social change, in however limited a measure, but to follow it.

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CHAPTER III

THE TRAINING OF TEACHER EDUCATORS FOR SECONDARY EDUCATION

(Dr. N. P. Pillai)

[As teaching becomes more and more technical, requiring specialized skills and knowledge, the training and preparation of teachers, need to be extended. To improve Secondary education, one has to begin right at the top—improving the quality of our university staff, more specially, the training college personnel. Dr. N.P. Pillai, of the University of Kerala, discusses the changing objectives in education and the consequent changes required in the teacher-preparation programme. He analyses in detail the implications of the Report of the Secondary Education Commission and the impact it should have on the training colleges. The selection and education of lecturers in the teachers' training colleges have to undergo almost a radical reform, if our educational goals are to dream of any measure of success at any level.]

THE PROBLEM

Consequent on the introduction of free compulsory primary education, there has been, of late, a large increase in the number of secondary schools and this increase is to continue for years to come. This has raised the demand for graduate teachers in all subjects to an extent that the supply can scarcely meet the demand. A survey of the teaching personnel in the secondary schools would reveal that, in many subjects, they are underqualified and do not possess the minimum qualifications prescribed. Certainly a good many of them are untrained, and in spite of the large increase in the number of training colleges within the last few years, the prospect of training even all the teachers already in service does not seem to be bright. More and more training colleges will have to be started in the next few years if the training programme is to include fresh entrants to the profession as well. Shortened courses for teachers with long experience or with undergraduate training have been suggested. The possibility of including education as a subject in the three-year degree course has been tried, and is being tried in some Universities; and if the

experiment succeeds, it could be extended country-wide, with a supplementary short term course on theory and practice, or in one of them, as required. It may, perhaps be possible, if strenuous efforts are made, in all these ways to increase the output of trained teachers, but this will only partly solve the problem. The real difficulty is not in getting teachers trained, but to train them well for the duties involved. This poses a series of problems for which satisfactory answers have to be found. The college where the training is to be imparted must satisfy certain minimum requirements in regard to staff and equipment, and the persons selected to undergo the training must have certain minimum personal qualities and academic attainments, if quality is to be assured. What these minimum requirements are, depends mainly on what the teachers are to be trained for. Needless to say that the answer to this question is to be seen in the objectives of Secondary education; for, teacher training fails if the trained teacher is not able to cope with these objectives; and therefore, the staff equipment and the stuff that is recruited for training must be tested in the light of these objectives and proved absolutely worthy.

In this paper, it is proposed to discuss only one of the many elements required to improve the quality of the training imparted to teachers, namely, the staff in the training colleges. It is common knowledge that in many training colleges we do not have the right type of teacher-educators to train teachers. Where could they be found or, how best could they be raised? What type of persons should they be? What should be the training they should have? Where should they be trained? How and for how long? These and other relevant questions are raised and discussed in an effort to clarify the issues.

METHODS OF TACKLING THE PROBLEM

To tackle the problem scientifically the following procedure is adopted.

(i) Define the objectives of Secondary education and identify the qualifications required of teachers in secondary schools to do their job well. This would be the guide to spot out the right type of persons to be entrusted with the task of training secondary school teacher and the objectives of secondary school training.

(ii) Examine the training programmes now in vogue in the training colleges and find out whether teacher-educators can be raised through the same courses or a different programme should be devised including a different method of selection if necessary.

(iii) Examine the prevailing practices in the recruitment, further education and promotion of teacher-educators and find out if these are satisfactory; if not, suggest feasible alternatives which would improve the situation.

IDENTIFYING THE QUALIFICATIONS OF THE TEACHER EDUCATORS

The Secondary Education Commission had stressed the following as the major aims of Secondary education.

- (i) Developing democratic citizenship.
- (ii) Improving vocational efficiency.
- (iii) Developing personality.
- (iv) Education for leadership.

Delivering the valedictory address of the teacher trainees of the Central Institute of Education, Delhi, Sri Prem Kripal, Secretary and Educational Adviser to the Ministry of Education is reported to have said on April 4, 1963, thus: 'The programme of teacher training should be national in character and should have a broad uniformity within which sufficient scope for experimentation and original thinking might be allowed¹.

The stress on the national character of the training programme for teachers, embodying within it scope for experimentation and original thinking, is the natural result of the desire to implement the ideals outlined by the Secondary Education Commission with regard to education in schools, and implies qualitative improvement in the personnel selected for the training and a reorientation in the techniques of training. Starting with the assumption that the aims of Secondary education are to be stated with special reference to the needs and ideals of the country, the Commission's report records the implications of the transformation of India into a secular democratic republic thus: 'This means that the educational system must make its contribution to the development of habits, attitudes and qualities of character which will enable its citizens to bear worthily the responsibilities of democratic citizenship and to counteract all those fissiparous tendencies which hinder the emergence of a broad national and secular outlook'.² The Commission rightly stresses the importance of this claim when it says, 'Citizenship in a democracy is a very exacting and challenging responsibility for which every citizen has to be carefully trained'.³ Analysing the task, the Commission finds that it

1 Indian Express (Madura Edition) April 6, 1963.

2 Report of the Secondary Education Commission 1953, p. 23

3 *ibid*, p. 23.

involves (i) developing capacity for clear thinking and a receptivity to new ideas, a scientific attitude of mind which would enable objective thinking and the deduction of conclusions from tested data; and (ii), clearness in speech and writing. Of the first, the Commission observes, 'What we wish to stress here is the need for teachers to appreciate that this is one of the most important aims that should consciously inspire their educational ideas and techniques,' and of the second, 'This is not only an important social asset, it is also an essential prerequisite for successful living in a democracy which is based not on force but on free discussion, persuasion, and peaceful exchange of ideas.' The Commission's further comments on it are also equally important. It says, 'A democracy is based on faith in the dignity and worth of every single individual as a human being.' 'Both for his own wholesome development and the good of society it is essential that he should learn to live with others and appreciate the value of cooperation.' living gracefully harmoniously and efficiently with one's fellowmen'.⁴ The qualities which are to be cultivated for this purpose have also been pointed out: they are, 'discipline, cooperation, social sensitiveness and tolerance.' These, of course, are not enough. 'A passion for social justice based on a sensitiveness to the social evils and the exploitation which corrupts the grace of life, must be kindled in the hearts and minds of our people and the foundations must be laid in the School'.⁵

These are attitudes which no ordinary person can instill in the minds of the young. They require a man with broad vision, determined faith, and a philosophy which guides all his conduct. The Commission's report expects the teacher to be capable of not merely inculcating these ideals. Much more is needed. The necessity for orienting the educational system in such a way that it will stimulate a cultural renaissance is stressed.⁶ This would require the teacher to be imbued in the culture of the country as well as in its ideals and aspirations. In addition, the 'Development of a true sense of patriotism which involves appreciation of the social and cultural achievements of one's country, a readiness to recognize its weaknesses frankly and work for its eradication and an earnest resolve to serve it to the best of one's ability, harmonizing and subordinating individual interests to broader national interests,'⁷ has been put in as an objective to be realized. This makes it necessary that the teacher should be true patriot, a discriminating, fearless, selfless

4 Report of the Secondary Education Commission 1953, p. 25

5 *ibid*, p. 25

6 *ibid*, p. 23

7 *ibid*, p. 26

individual whom pupils could emulate. He should also be aware of the aspirations of modern India and of the new trends in education which stresses the dignity of work and the need for doing work 'artistically and efficiently.' 'The creation of this attitude must be the function of every teacher,' says the Report, 'and it must find expression in every activity of the School'.⁸ He should be able to 'reject firmly but with sympathy all work that is halfhearted or slipshod or casual' and prize 'technical skill and efficiency at all stages of education'. The philosophy that every thought must issue in action is indeed a concept which, though as old as the scriptures has come to be stressed in education only recently, and needs, a very different type of individual from the traditional training college lecturer to train teachers in the new way. Subjects like craft, music and dancing and the provision of hobbies are suggested in order to 'release the sources of creative energy in the students' or quicken their emotional life and promote constructive talents and artistic tastes. Naturally, no one, who could not enjoy art or sympathize with the artisan and appreciate his work, can fit in well this atmosphere or promote it. Equally exacting, though not unfamiliar, is the objective of developing 'knowledge and skill and the mental habits required for independent work at the University level'.⁹ This means that the teacher's knowledge of subject-matter and professional competence must be fairly high. Coupled with this, if it is to be useful in training every high school graduate for leadership at the intermediate level, certainly it calls for qualities of head and heart as well as knowledge and training which are of no mean order. If the school teacher is to possess these qualities, the teacher educator, it goes without saying, must have them in a greater degree.

It will be an interesting exercise to read, along with the objectives outlined above, some of the remarks made about what has already been achieved in secondary education. The Commission records complaints of the following type. 'This education is too bookish and mechanical, stereotyped and rigidly uniform and did not cater to the different aptitudes of pupils or to pupils of different aptitudes. Nor did it develop those basic qualities of discipline, cooperation and leadership which were calculated to make them (the pupils) function as useful citizens'.¹⁰ In other words, this is an open condemnation of the system as operated by the teachers and administrators at the time the Commission submitted the Report. The teachers were not able to develop self-reliance or the habit

8 *ibid*, p, 27

9 Report of the Secondary Education Commission 1953, p. 28.

10 *ibid* p. 20

of independent thinking in their pupils, nor were they able to exercise proper educative influence on their minds and character. The reasons for this state of affairs is also given. 'The teaching profession does not attract a sufficient number of the right type of teachers with the requisite personal qualities and aptitudes and a spirit of devotion to their work.'¹¹

This criticism of the teacher's inability to deliver the goods makes the problem of the training of teacher educators more serious. The teacher cannot be expected to rise to the high demands required of him unless he is properly selected and trained; and the responsibility for this rests largely on the teacher-educators. Hence, they should be persons, who, by virtue of their personal qualities and the training they possess, are able to impart to the teachers under training both the technique and the vision, and naturally, they can only be few. How to spot them and train them is another problem.

THE TRAINING PROGRAMME OF TEACHER EDUCATORS FOR SECONDARY EDUCATION

The qualifications suggested in the Secondary Education Commission's Report for teachers in Training Colleges are (i) an Honours or Master's Degree or first class B. A. or B. Sc. degree in the particular subject, and (ii) a professional qualification—a Master of Education Degree, together with 3 years' teaching experience, or an L. T. or B. T. Degree with 5 years' service as an Inspector or Headmaster. The Commission seems to have taken into consideration several factors like paucity of highly qualified persons in making this recommendation. Otherwise, an M. A. or M. Sc. in the 3rd Division will not satisfy the criteria of 'a good general education' which they prescribe, nor would a B. T. Degree in the 3rd Division constitute a good professional qualification. As it is, there are many colleges where lecturers are appointed who have only a 3rd class B. A. and 3rd class L. T.; a 3rd class M. A. and a 3rd class L. T., may certainly be considered as satisfying the Commissions' requirement. Even a first or second class B. A. with a first or second class B. T., cannot be considered well qualified for the job as, both in knowledge of subject-matter and in knowledge of professional subjects, these courses do not provide the depth of training required. An M. A. Degree with a 1st or high 2nd class in the subject, plus a B.T. or B. Ed. Degree with specialization in the methods of teaching the particular subject, with a general 2nd class, or atleast, second class marks in the theory and practice parts pertaining to the subject, and an M. Ed. Degree, must be

the minimum qualification required for any teacher in a Training College, if he is to do his work well. For, the teacher educator should have the highest academic and professional competence—a Master's Degree in the subject and a Master's Degree in Education alone could give him this competence and the necessary confidence, arising out of it, to manipulate matter and method for realizing changed or changing objectives. The Commission's Report has suggested 3 to 5 years of teaching experience or some experience as Inspector or Headmaster. This is very important for enabling the teacher-educator to be realistic in his approach; but even this is not always adhered to. Inexperienced teachers appointed to teaching positions in training colleges, are not few. The result is, as the Commission reports, the Colleges have not been able to improve instructional methods in schools. 'Methods of teaching in use are still dominated by routine'; 'lessons are being given in a mechanical way, giving information which is reluctantly memorised by the students'; 'Methods of teaching generally practiced (have) failed to develop in the students either independence of thought or initiative in action'.¹²

Having pointed out this state of affairs in schools, the Commission's report says, 'every teacher and educationist of experience knows that even the best curriculum and the most perfect syllabus remain dead unless quickened into life by the right methods of teaching and the right kind of teachers'.¹³ The methods must be 'Psychologically and socially sound,' i. e., conclusive to the development of proper 'attitudes and values'.¹⁴ The teacher must be able to avoid verbalism and infuse concreteness and reality in teaching and break down the 'barriers between life and learning and between the school and community'.¹⁵ promote independent study and work by students, and transform 'the bookish school' into an 'activity school'. 'This implies that in the teaching of every subject, opportunities should be afforded to the pupils to apply practically the knowledge acquired by them'.¹⁶ In other words, the teacher should be able to appreciate and handle the modern techniques of the teaching-learning process like the project and problem methods, library assignments for self-study, group discussions and co-operative work. How miserably our training colleges fail in imparting enthusiasm and the right training for these is well known; what is perhaps not so well known

12 Report of the Secondary Education Commission 1953, p. 105

13 *ibid* p. 102

14 *ibid* p. 103

15 *ibid* p. 104

16 *ibid* p. 106

is the fact that it is mainly due to the lack of proper teaching personnel on the staffs of these colleges.

The Commission's report recommended a two-year B. Ed. course as they were convinced that no less than this would be sufficient for the proper training of teachers, but the Commission was prepared to compromise and permit the one year course to continue mainly on financial grounds. Rightly the Commission stressed that the Training College should take up along with teaching, "research work in all aspects of pedagogy", and hence made the following statement: "The staff of the college should be such as would be capable of devoting some of their time to research in curricular and extra curricular activities, general administration, modern trends of pedagogy, and also from time to time in research to evaluate results of the particular method of training adopted in different schools".¹⁷

It is not possible to introduce methods of research in the B. Ed. syllabus, and therefore, if teachers in Training colleges are to do any research, it becomes necessary that they must all have taken the M. Ed. course. The M. Ed. course would also serve to deepen their knowledge in professional subjects and broaden their horizon of educational ideas. The days are gone when the B.A. was the qualification for teaching in the B.A. class and the B.T. for teaching the B.T's. In the United States, the Ph. D. is fast becoming the minimum qualification for teachers in institutions of higher education; in the U.K. too the M.A. in Education seems to be the usual qualification for teachers in the University Departments of Education and even in the Training colleges for undergraduate training. The M. Ed. being usually a year's course after B.T. or B. Ed., cannot be considered as too long a course for those who aspire to teach in Training Colleges.

The Commission views the M. Ed. course as one which should be organized for inculcating qualities of leadership in education. They suggest that courses should be offered for training educational administrators as well as for training college teaching personnel. Comparative education, curriculum of school studies and techniques of teaching are all to be included in this course. The course, as conducted in the Universities today are, in some cases, too general; in others, too specialised. Whether the one or the other is good for teacher educators has to be considered.

One more problem, which crops up in this connection, is the selection of candidates for undergoing the B.T. and the M. Ed. courses. In general, pre-service training has become the accepted pattern and teachers in service are selected only as they cannot be left out untrained. It is therefore now possible to make a careful selection of the candidates, keeping in mind the qualities needed to make good teachers. Tests and interviews have become common in most training colleges. But these are not guarantees for the most suitable candidates alone being selected ; for seldom do the training colleges attract many candidates of high quality. The causes for this state of affairs, of course, need to be remedied if good teachers are to be forthcoming, but it may be assumed that, even still, there will be a good number among them who could be picked to be trained as teacher-educators. Or, if it becomes the pattern that the best among the entrants would be specially trained for the profession of teacher educators, certainly there will not be dearth of first class candidates applying. Whether these candidates should be specially trained as teacher educators at the B.T. level or should be trained at M.Ed. level, has also to be considered.

THE RECRUITMENT, FURTHER EDUCATION AND RETENTION OF TEACHER EDUCATORS.

Speaking of the recruitment of teachers, the Commission's report says that it has been 'haphazard' and that 'a careful selection has been the exception rather than the rule' The same criticism applies to the recruitment of teacher educators. For, they are raised from these teachers, either because of better qualifications obtained and or longer service, or without even these considerations in the course of exigencies of service. The hope expressed that "only those who hold the highest promise of becoming successful teachers" should be admitted to the Training colleges has not been fulfilled. A very laudable suggestion that has been put forward in the Report is the inter-change of Professors with Headmasters and Inspectors to enable professor to take up the duties of Headmasters or Inspectors for short periods and become familiar with their work.¹⁸ In Government colleges, in some States, this interchange does happen, and to that extent, the senior staff in the training colleges benefit. But this is not feasible in the case of private training colleges unless the management has its own school system with headmasters and Inspectors. Hence, they often stagnate and lose all vigour and enthusiasm in the course of years. "Once a Lecturer. always a Lecturer" is the rule

18. Report of the Secondary Education Commission 1953 Page 173

rather than the exception. The scales of pay instituted for them are not commensurate with the high qualifications that are desirable for them. Chances of quick promotions to higher places are few in the Colleges. These naturally affect the inflow of the proper type of persons to the profession.

CONCLUSION ; NEW PROPOSALS.

The objectives in the training of teacher educators have to be framed from the point of view of the quality of the end-product, namely, the students in the Secondary School. If the teachers, who are to teach them and turn them out as better students and persons, are to be the right type, those who are to train these teachers must themselves satisfy these qualifications. This means they have to be chosen and trained with extra care. No one can be considered to have a reasonably high standard of attainment in any subject unless one has a Master's Degree in the subject with a first, or atleast, a high second class ; and so, candidates with such qualifications should be attracted to enter the L.T. or B.T. class as trainees. Those among this academically sound material who show the right social qualities and professional aptitudes, must be spotted out even at the beginning and trained for the job of teacher-trainers. If they are advised about this prospect, it should be possible to make them do better and harder work while they may be undergoing the same training with the other students. They may read more intensely under guidance and ultimately score very high in the examinations. During practice teaching and criticism lessons, they may be tried for qualities of initiative and leadership and in the use of improved methods of the teacher-learning process. Such of these, who come out of the course with credit, should be encouraged to continue their studies at the M. Ed. level. A certain number of freeships or scholarships must be made available to them. Those who pass the M. Ed creditably should be drafted to the training colleges as 'interness' for at least one year. This period should be spent by each candidate to work under supervision in the field in which he would later become a teacher in the training college. He may watch the lecturer at work and assist him in that work ; he may assist him in the correction of notes and discuss with him the why and the how of every step ; he may participate in the supervision of criticism lessons and practice-teaching and learn the tricks of the trade ; and he may do or direct action research, design project work, lead excursions, etc. He should also be made to teach a few periods in the school every week and observe the teaching of selected teachers with a

view to critical discussion of their work with them after the lessons. This would be apprenticeship for taking up assignment as a Training College Lecturer and should be treated as the Ph. D. programme in the case of aspirants for lecturerships in Arts and Science Colleges.

Recruitment of Training College lecturers must be made, as far as possible, from people trained as above. They would be first class academic material, and possess qualities, personal and social, which are a desideratum for the profession. They would have acquired enough practice in teaching to acquaint them with the actualities of the school in the one year internment period so that they could make their lectures realistic. They would bring to bear a fresh and alert mind on the work and the profession is bound to benefit by it very much, especially when new ground has to be broken. "The new task confronting teacher education is, in part, the breaking down of the control of tradition and outworn practices, and in part, the building up of new concepts of education and a creative approach to the problems of teaching"¹⁹, and this is a challenge which may best be met only with blood.

The greatest defect of the present system of recruitment as Lecturers is that it makes the job least attractive to the right type of person. The ideal, as we have said, is a first-rate person who has an M.A. Degree in the subject and an M.A. Degree in teaching, and 3 or more years of teaching experience in a school. No first-rate person with a first class M.A., will normally spend 2 more years in taking an M.Ed. Degree, and then, teach for 3 years in a Secondary School, getting a low salary, to qualify for a lecturership, which, in his own subject field, he could have got without undergoing all this trouble. Hence the need to give up the prescription regarding 3 or 4 years of teaching experience as a qualification for the profession. This can be done only if the internment idea is accepted. Teaching during the internment period, being purposive, is likely to be a real experience, the type of which even 10 years of routine or aimless teaching cannot give to the ordinary teacher; for, experience comes not out of repetition but reflection with a view to self-improvement. Brilliant young University graduates would not hesitate to come forward to enroll in training colleges if, after M. Ed., and a period of internship, they may have the prospect of starting as Lecturers in the training college. The influx of such brilliant young men, with fresh ideas in the profession of teacher-education, alone is the surest guarantee for redeeming the teaching profession from the hands of glorified mediocrities, and for raising standards of work in teacher-training colleges.

19 'Teachers for our Times' American Council on Education, 1944, p. ix.

The recruit, however fine, cannot grow into an expert unless he has opportunities provided of further education. Ways and means should, therefore, be found for enabling the training college lecturer to associate himself with the work of the schools in the neighbourhood and understand the changing problems of teaching classes, tackling students, administering schools and promoting the teacher's personal satisfaction. This experience can easily be provided through the 'Extension Programme' of training colleges. But, there are other experiences which it is not so easy to provide. Such are the functions—duties and responsibilities—of Heads of Institutions and of the Inspecting and Supervisory staff. It may not always be possible to post lecturers as Heads of Institutions or Inspectors unless the college in which they work is part of a big management with many schools; and even here, there are other difficulties. However, if, instead of posting them to these offices, they are only seconded to these offices for a short period, say three to six months, it will be a feasible proposition, and there will not be anything that shrewd lecturers would not have learnt within that period, which is necessary for them to make their work in the training college real and meaningful.

One other point that is relevant in considering the preparation of teacher educators is the need to prevent wastage among such trained men. Very often it happens that lecturers in Training Colleges are transferred or sent out to Arts and Science Colleges on promotion as Professors and *vice versa*, under the same management, especially if it is a State Government. This practice detrimentally affects the Training Colleges in either case; for in the one, a seasoned teacher is taken away; and in the second, the incumbent lacks the precious and vital experience needed to do his work well. To prevent this; the Training Colleges should be treated as a separate unit and not clubbed with the Arts and Science colleges for purposes of transfer and promotion of staff, and, salary grades should be fixed for the teachers in Training Colleges which would ensure them reasonable prospects of promotion within. The retention of the trained teacher-educator in the Training College is as important for improving teacher education as the recruitment and training of efficient teacher educators.

CHAPTER IV TRAINING OF SECONDARY SCHOOL TEACHERS

(P. Doraikannoo Mudaliar)

[AN over-all view of teacher education-taking into account the chain reaction started by the influence of the training College lecturers on the teacher-trainees and carried by them to the secondary schools and the community as a whole, with its long range repercussions on the nation through its future citizens, is an awesome reflection causing almost panic to the thoughtful minority among the educationists. Shri Doraikannoo Mudaliar, of Alagappapuram, brings into focus the sad state of affairs obtaining at present and rivets our attention to the immediate tasks confronting the teacher-educators. Unless the personnel responsible, act with responsibility, speak in consonance with their actions and take thoughts to guide both their action and speech, teacher education, because of it, the whole educational system, face a very future indeed.]

THE PRESENT PATTERN

Training for secondary school teachers is a post graduate course of one year's duration with intent and purpose to equip them for teaching in our secondary schools. A graduate in arts or science of any university in our country has a title to training as teacher regardless of his subject of specialisation at the degree course. Prima facie it appears as if the trainee gets inducted into the methodology of teaching his special subject whose content he does know by reason of his having studied it at degree level. Either English or his mother tongue becomes an additional subject of training so that he is trained to teach two subjects among those of the secondary school curriculum. It is thus that teachers at this level get attached to particular subject or subjects and become subject teachers. This is as it should be in accordance with the curricular pattern of our Secondary Training Colleges. The same curricular pattern fits out teachers of graduate status to man the several training schools where teachers of secondary grade level are trained to staff the primary and lower secondary schools. The same teachers in addition to teaching the methodology of their own special subjects take up the teaching one of the general subjects requisite for a teacher of any level. They are therefore

teachers of Psychology, School Organization, or General Methods. Thus the teacher for the secondary school is also the teacher for secondary grade training schools.

The secondary school teacher is also the school administrator in his role as the head teacher and also the role of an educational administrator in his capacity as the Education Officer of a district or a subaltern; and he is not precluded from occupying the peak of the profession of that of even the Director of Public Education of a State. The secondary school teacher has therefore many roles to play; he is a collegiate trained teacher invested as such by the highest educational authority as for instance in the state of Madras, and perhaps in most other states too of our country.

There seems to be a difference of opinion as to whether the teacher trained for the secondary school a post graduate teacher. This nomenclature may hold good in so far as the minimum qualification for entry into a secondary training college is a University degree; but viewed against the master degree in Education for which provision has been made in some of our universities, the post graduate status in teaching can go only to those that qualify themselves for the Masters' degree in education. The M. Ed's are either secondary school teachers or lecturers in teacher training colleges and the avenues open to them are as varied as those for secondary trained teachers. Perhaps, in course of years, our secondary training colleges as well as higher teacher education institutions will be staffed by M. Ed's and Ph. D's in Education.

The one year course of secondary training confers the degree of B. T. or B. Ed. regardless of accent on teaching or on education. The question arises whether it is a degree for ability in teaching or for the course in the theory and practice of education. The curricula of our training colleges will reveal that it is the latter in combination and not mere ability in the technique of teaching. Secondary school teachers thus comprise of Bachelors of arts and sciences, Masters of arts and sciences Bachelors of teaching or education and Masters of education. It is all a question of opportunities, so that it is not always that a Master of arts or science and a Master of education gets his berth in a teacher training college for which he will be appropriately qualified. Thus secondary schools have a variety of staff except where Graduates in science are said to be not available or where adequately experienced teachers are too few for recruitment as headmasters or headmistresses. In this connection one is inclined to think that the large output of our training college graduates seek vocations other than teaching, more particularly, trained teachers of

science find non-teaching posts highly lucrative with alluring prospects. This invisible change of occupation is in part responsible for shortage of teachers.

THE CURRICULUM

It may now be considered whether the equipment afforded by our training colleges is adequate for the various avenues open to prospective teachers in the educational sphere. The curricula of our training colleges will reveal, among a variety of subjects which different colleges offer, certain general subjects such as Educational Theory, Psychology, General Methods pertaining to particular subjects and School Organisation. Apart from these, subjects like History of Education, Philosophy of Education, Educational Sociology are the other subjects besides those considered as indispensable. All this theory apart, a very good tendency of the times is an attempt made to afford facilities for student-teaching and apprenticeship for a short period which perhaps varies from state to state. Although it may appear that the prospective teacher is oriented not only in the theoretical aspects of his educational course but also inducted into the practice of teaching, the distressing fact is that he is drawn into a rut in the school in which he may get employed, so that all knowledge of educational theory acquired during the training course is lost sight of and experience through passage of years does not conduce to better teaching. The training colleges themselves are more to blame than the teachers in schools for defective teaching and its concomitant poor learning. The training colleges fail to relate theory to practice or vice versa and the appalling state of affairs is that each subject lecturer concerns himself with his own domain of theoretical matter mostly bookish and seldom meaningful through application to classroom situations. Neither theory is applied to practice; nor practice is made to bear relation to theory with the result that teaching in the classroom is a matter of a routine which neither blesses him that gives nor him that takes. That teaching is an art becomes devoid of the techniques that should go with it, and all and sundry not only claim the right to teach, but also criticise teaching in schools. This is because trained teachers do not make use of teaching techniques in order that teaching and learning may be effective. Rather they content themselves by merely teaching the subject instead of the pupil. This deplorable state of affairs is the most poignant situation obtaining in our schools. Of course, this may not be said of all the schools; nevertheless in most of them the teachers make pretentious claims to their role as educators; while, in fact, they plough the same

furrow regardless of the influence of the renaissance that is fast taking place in the educational sphere. It is absolutely necessary that our training colleges intertwine theory and practice, so that it is impossible for the preservice teacher to see their difference and that their teacher personality cannot be split personality, one for pretentious claims and the other for indifferent teaching. Neither the lawyer nor the doctor can dispense with his theory; and even so the trained teacher has to be conscious of his professional techniques so that what he professes he practises and plays the role of a successful educator. He has to realise that if a goldsmith spoils an ornament in the making process, he can remake it by melting the gold; but that if the teacher spoils the lives and minds of a few of his pupils every year, their fates are doomed and they cannot be remade.

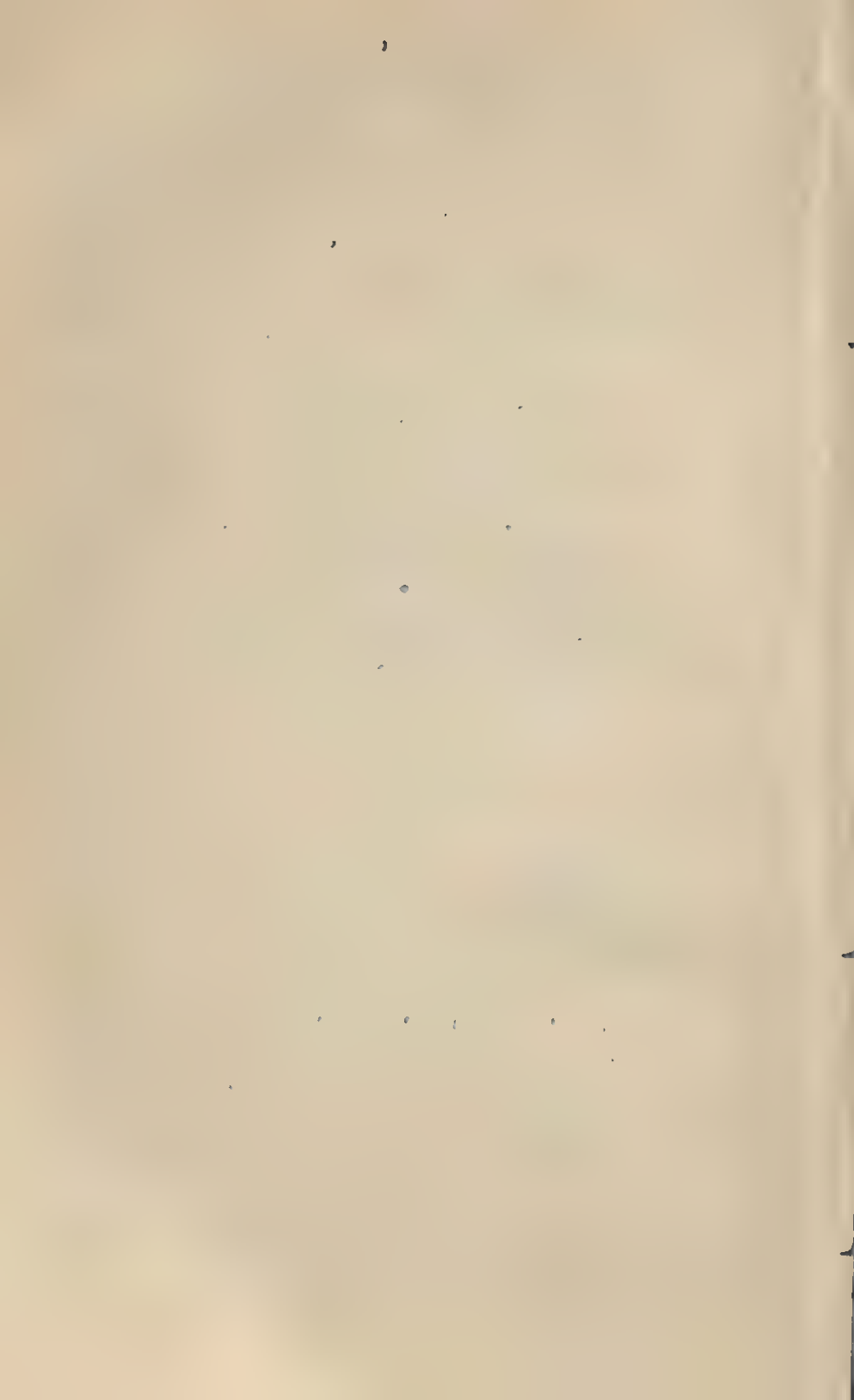
THE TRAINING COLLEGE STAFF

The training colleges, therefore, should do their duty by the prospective teachers to the best of their ability. It is pointed out that most of the staff are mere lecturers in the strictest sense of the term and that they give very little guidance in seeing the meaning of the theoretical aspects in classroom situations. In some quarters it is also glibly complained that most of the lecturers carry on their job by dictating some notes which had been dictated to them by the lecturers of their own days; and that they do not enrich themselves by extra study for the improvement of their own competencies and that not having had teaching experience in secondary schools, they shudder to give demonstration lessons for fear of loss of prestige in the model or practising schools. As long as these inadequacies persist in our training colleges, so long their products cannot be of any standard. The lecturer in the training college must be capable of not only up-to-date knowledge of his own theory, but he should also be able to put into practice his theoretical knowledge in actual school and classroom situations. Cite, for instance, the lecturer in Psychology who is deeply absorbed in the coverage of his syllabus without indicating the practical applications of his theory to pupil growth of behaviour or reactions. The laws of learning, the curve, and the plateau all hang on the ramparts of the student teachers' mind as so many isolated fragments of information. All that is attempted is to memorise the material to answer a few stock questions that get repeated year after year at the B.T. Degree examination. Even this meaningless material is forgotten after the qualifying examination. During the period of student-teaching, neither the schools to which they are attached nor the teachers under whom they are apprenticed give any inspiration; and the student teacher is a helpless

eye-witness to a dull routine, so that his own practice teaching is neither exacting for challenging. Thus, the teachers of training colleges for their part just give some verbal disciplines only to the extent that they would be useful nor answering the questions at the B Ed. Degree examination; in the practical test students are passed because of the absence of objective criteria for evaluating teaching.

The training colleges are said to be crowded. A strength of one hundred is considered to be the optimum and a ratio of 1:10 as wholesome. The lecturer in the training college should be the master of the subject both in theory and in its practical applications - the gulf between the two should not be perpetuated. He must have had teaching experience in a secondary school and during his service in a training college, he must get attached to some class in his model high school where he should be teaching throughout the year, so that everyday his students would observe teaching in its proper setting. He should also begin his theory through a practical demonstration of it in the first instance, and leave his students to deduce the theory for themselves. As a matter of fact, whatever discussion takes place after the demonstration of teaching by the lecturer, may very well constitute the theoretical aspects. Or else, the theoretical course becomes meaningless and soulless. As it is, the unfortunate trainee is subjected to the same lecturing method which the student teacher had had ad nauseum in his arts course, so that he leaves the training college with the impression that the only method of teaching under the Sun is lecturing. The result is that when he gets his turn to teaching, he is also found lecturing. These are days when different methods are adopted to draw the interest of pupils and to attract their attention. Our training colleges can very well afford to adopt the conference, seminar, workshop plans and procedures in order that the trainees will be able to participate in the learning processes.

The complaint is often made against the stuff of students that are enrolled in the training colleges. In secondary training colleges any graduate has a title to admission; there is much screening through certain criteria for selection; but once the selection is made, the staff can not have reason to complain against the stuff. The staff, therefore, more by their example than by their disgusting precepts, should exert their unceasing influence on the prospective teachers, infect them with their enthusiasm, and equip them for the national task of man-making of the future generations of our country.



CHAPTER V

TRAINING OF PRE-SCHOOL EDUCATORS

(Rajalakshmi Varma)

[SECONDARY or University education is admitted to be a failure by quite a few people, as the education does not seem to "educate" much. While the easier way is to blame the society, the authorities, the teachers and everyone else except the "class" to which oneself belongs, the real educator has to seek out the reasons of this failure and remedy them as far as he can. A little thinking and common-sense leads us to the inevitable fact that the super-structure cannot be stronger than its foundations. Dr. (Miss) Rajalakshmi Varma, of National Institute of Education, pleads strongly for a more sensible and adequate programme of teacher-preparation for the pre-school stage. That level, being the basis of all future learning and teaching, should claim our full and complete attention, if any planning is to achieve reasonable success, at the higher stages of education. As well-known, it is the most neglected field and this plea for greater care at this stage goes unheeded at great peril to a society which lacks arision and imagination.]

IMPORTANCE O PRE-SCHOOL STAGE

Fundamental Child Study and pre-school education from the foundation on which the entire educational system is built up. No matter how we organize and plan the elementary and secondary school educational systems, we can not get the best out of it unless our system of pre-school education is sound. Same is the case with Child Study. Education at every stage is based on Child Psychology and any method of education, if it goes against the principles of child psychology, is bound to lead to disaster. Thus scientific methods of child study and an effective pre-school education programme should form the basic structure on which alone can the educational reforms function successfully.

What sort of a person a child is going to be depends upon the type of training he gets in the early stages. His intellectual attainments, emotional control, social adjustment and spiritual values and attitudes, in short his entire behaviour patterns, depend upon his early childhood

experiences. Very often we find in India that by the time the child is five or six and should be just ready for the learning of the three R's, he is already tired of the whole process of learning. The child is taught to read and write even from the age of three and so by the time he is about six years old, he is sick and bored and does not want to learn any further. The reasons for the early training are two fold: (1) the parents in their anxiety to give their children a 'good' education are pressing the pre-schools to start formal teaching even at the age of three, (2) the pre-school teachers themselves do not know how to promote the children's interests and take to the easy method of occupying them with slates and pencils and books.

WHAT IS A PRE-SCHOOL ?

A pre-school is or ought to be a school that offers opportunities for the developmental tasks characteristic of this period of life. It is similar to a primary or a secondary school in that it provides opportunities for learning but is different in that the entire routine is relaxed, informal and makes provision for the child's brief attention span and need for greater freedom of movement.

A pre-school ceases to serve its purpose if the developmental trends are not taken into account. A child of three or four does not derive any benefit if he is made to read and write for hours together, for he is not yet developmentally ready for such an activity. The child experiences undue strain if these activities are introduced too early and tends to develop feelings of aversion and hatred towards the entire learning process. But a pre-school is again not the place where the child just sits and waits to mark time in expectation of future activities. It is the time for exploration, creative activities and experimentation, a time to gather as much first hand experiences as possible on which is built the entire superstructure of abstract thinking and learning. It is not just a place to establish 'good' eating and toilet habits or disciplined ways of behaviour. Neither is it meant to fill the child's head with alphabets and numbers. The pre-school does not serve any purpose if it does not follow the developmental trends of this stage and adjust its curriculum to serve the growth needs of the children.

Therefore, it is time that we thought of collecting the developmental norms of the Indian children. It is not right to apply the trends found elsewhere to our situation because social, cultural and climatic conditions are seen to affect the development to a great extent. Child studies are to be conducted in the context of Indian conditions and only

on the basis of such studies can we chalk out an effective pre-school programme.

MINIMUM ESSENTIALS OF A PRE-SCHOOL

A pre-schooler in many ways is still a baby and requires a great deal of attention. Hence a pre-school is a school cum nurser, which is furnished in accordance with the child's proportion complete with chairs, tables, washbasins and toilets but is nonetheless a regular school with its own objectives and curriculum.

The main objectives of a pre-school can be stated in terms of giving the developmental needs, thereby providing opportunities for better growth. These aims can be met only if certain minimum requirements are there. The most important of these is the need for plenty of free space for the child to move around and explore. The second factor is the teacher who is understanding, patient, versatile and agile. For children who are unsure of themselves such a person is an absolute necessity. Next come the equipments such as the playmaterials, blocks, musical instruments, picture books and plastic materials such as clay, paint etc., which when put together, make up the curriculum of the pre-school. Thus, plenty of moving space, good learning materials and an understanding teacher, form the basic requirements of a pre-school.

CURRICULUM IN THE PRE-SCHOOL

The pre-school curriculum is a very flexible one. There is no strict time table, or rigid routine but is planned in accordance with the child's capacity for absorption. At the same time it is not haphazard. A lot of careful measuring and planning is done to chalk out the daily programme which has its own stable sequences such as the prayer time, snacks time or toilet time. It should offer the child security by its stability but at the same time should not kill the initiative and creativity in the child by being too rigid.

The content of the curriculum consists of a number of items which are designed to offer the child a great deal of first-hand experiences on which information can be built up later. For this, freedom of space is essential. The child should be allowed to move around and explore and learn from it the concepts of movement and space. The mysteries of nature can be learned by the child only if he is encouraged to wander and observe. Occasional trips to farms, parks or zoos will strengthen the impressions of these children.

The learning materials of the pre-school can be of almost any type. Picture story books stimulate the children's creative imagination

and verbal capacity and provide them with factual information. A story read aloud to a group of children makes them share feelings and experiences and promotes conversation. Similar to this is the musical experience. Children enjoy music and learn much through this medium. Activities of music and dancing are extremely popular in the pre-school and many a piece of information such as the health habits or ways of courteous behaviour are taught to the children through music and dancing.

Creative activities such as painting, clay modelling, sand play, block building, doll play etc. are also important in a pre-school. These provide opportunities for children to express their pent-up emotion and often are found to have a therapeutic value. They also like to squeeze clay or splash paint for their sensory qualities alone. They, particularly those in the younger age group, do not care much for the outcome of their activities. For them it is the process that is more important than the product. Later as the children grow older, these activities are more and more used for dramatic play.

Coming to the human resources, we have the teacher on the one hand and the peer group on the other. A clever teacher interferes in the activities only to the minimum but is always on the look-out to fit the children into group activities. Pre-school is the first place where children get an opportunity to get to know the others of the same age and learn thereby the fundamental step in the process of socialization. They learn to converse, share their properties and eat together at the pre-school. Group songs, group games and lunch or snack sessions are thus essential in crucial lessons in human behaviour through the medium of group play. Subtly directed play is the basis on which the entire pre-school curriculum revolves and a teacher, to do justice to it, should be adequately trained to utilise and invent suitable play activities whenever and where possible.

TEACHER PREPARATION FOR PRE-SCHOOLS

What is said so far implies the tricky nature of the task of the pre-school teachers. They need adequate training as they are responsible for the destiny of hundreds of children at their most impressionable stages. Though the Government insist that the primary and secondary teachers should be trained, no such rule is applicable for the unfortunate pre-schoolers. Pre-schools are set up by all sorts of people, some out of interest in children, some to study child behaviour and some to make money. Many of them do not have any previous preparation and do not even have faintest idea as to how a pre-school works or what the role of a teacher in a pre-school is. These schools serve only as mere

'parking places', where children are dumped for a short while so that the mothers get some free time.

The parents and the general public are under the impression that the pre-schoolers can be educated by anybody without any special training, as they often mistake them for play centres. They forget the fact that pre-school is the place which lays the foundation of a child's personality and that experiences at this level can either straighten or twist the child.

The number of pre-schools are increasing day by day. As industrialisation advances and as more and more mothers have started to work, pre-schools have become a necessity. But we have not taken into account the quality of these numerous schools. Many of them are run by people who have had absolutely no training. Some claim to be trained but if we probe into the details of the training, we can soon find that all that they have done is to take an evening course of the duration of two or three months. They have had no contact with children but have only learnt some theoretical materials from a few books. On the other hand, there are also other courses which run for a longer duration and offer excellent training.

In short, the variations in pre-school teacher training are marked. The content and the duration of the course change from place to place. The minimum requirements to undertake the course also varies. Some need only middle school certificates, others need high school and some others need higher secondary certificates. There is so much variation that it compels us to think of forming a more or less uniform and healthy pattern of teacher preparation for pre-schools.

As the author has indicated elsewhere*, it may be better if pre-school teacher preparation is taken at two levels, one to train the ordinary teacher at a lower level and the other to train the heads of pre-schools—at a higher level. The training at the lower level should provide the student teachers with sufficient opportunities of participating in and observing the activities of the pre-schools. The advanced training should offer in addition to the practical experience a more detailed course in school organization, child psychology and the other allied branches of discipline. The minimum requirement for the lower course can be set at the high school level whereas the advanced course needs higher basic education and the requirement can perhaps be set at graduate level. The duration of the course can be one academic year for both the course.

*Rajalakshmi Varma—Teacher Preparation for Pre-schools, *The Child*, Bulletin No. 2, 1963, Child Study Unit, National Council of Educational Research and Training.

The practical content of the course should be more or less similar in both the courses. Play and its significance to the pre-schoolers are to be taught to them in great detail. They should understand that all teaching and learning are done only through the medium of play at the pre-school level. They must be given adequate experience in conducting activities such as story telling, painting, music, clay modelling, block building and other hand-work that are often interesting to the pre-schooler. Take one activity, for instance, story telling. The teacher should know the interests of her pupils and should choose a story that will attract them. The content of the story should be such that it does not unduly excite or frighten them. Whether the story has suitable illustrations, the ways in which the story is to be told, the gestures and expressions to be used in story telling and the method of answering the numerous comments and queries that crop up during a story session are points that a student teacher should know. Similar is the case for every activity. A person needs a thorough practical experience to understand these activities.

Another important aspect of the training programme should be to provide opportunity to make inexpensive learning materials for pre-schools with indigenous materials. Clay, Straw, bamboo, coconut leaves and shells, cotton, tamarind seeds etc. are excellent materials for children's handwork. The student-teachers should be taught to make good use of all these materials by making colourful, attractive but inexpensive toys. A good pre-school teacher is one who can make use of almost any material, provided it is not dangerous to the children. A doll house out of a large packing case, attractive costumes out of torn saris, a petrol station out of old pumps and tyres, or scrap books out of old magazines will be delightful to pre-schoolers. Thus these pupils should be trained to be self-sufficient and improvise toy materials for the use of the children.

The next aspect refers to the health habits of children. The student teacher should know the administration of first aid, the basic principles of hygiene and the nutritive requirements of children. They must also know to keep a cumulative record that will give a full developmental history of the child.

The difference between the ordinary and the advanced courses exists with regard to the theoretical weightage. The students who take the ordinary course need know only the fundamentals of child psychology and child development. It is not necessary for them to know organisation of schools, formation of parent teacher association or organization of

guidance programmes. The emphasis here should be mainly on methods of childhood education.

The training at the advanced level has to be necessarily of a higher standard because it is these personnel who will ultimately be responsible for the pre-schools of the country. In addition to the subjects already mentioned earlier, they should be taught the methods of organizing and administering a pre-school, evaluating and maintaining cumulative record cards, running effective parent-teacher associations and running courses in parent education, designing equipments and planning the curriculum for the pre-school.

A good theoretical knowledge is also necessary in the fields such as Principles of Education, Methods of Childhood Education, Child Psychology, Child Guidance and Child Health and Nutrition. The educational systems of Rousseau, Pestalozzi, Froebel and Montessori should throw a great deal of light on pre-school education in general. It is also necessary for the student teacher to know in detail the developmental trends of children, the common behaviour problems of the pre-school stage and the significance of early childhood experiences in the development of the personality. They should also be taught to identify the difficult problem of children; diagnose their difficulties and render, if possible, suitable help or refer them to special agencies. Formulae of balanced diet, art of making inexpensive but nutritive meals, methods of keeping the school and the surroundings clean, detecting the common childhood illnesses and isolating such children are also to be taught to the students. They should also be trained in method of observation and techniques of interviewing and case study without which not much of significant help can be given to the children.

A workshop attached to the nursery schools where the trainees can get sufficient experience in the manufacture & repair of play materials will be great asset to any pre-school teacher preparing institution.

The selection process for such a training should be very carefully made. A pre-school teacher has to have a great deal of general knowledge, besides knowing children. She may be faced with questions such as "Who is God, what is death, how are babies born" and must be in a position to answer them without hesitation. She may also come across technical questions such as "how do we hear songs from the radio, how does a car move?" Unless a teacher answers the questions truthfully and accurately she may kill the curiosity in the child. In addition to these intellectual qualifications, she must also have plenty of physical stamina. It is not easy to keep pace with twenty young children,

each going in a different direction. She should be always on her toes to prevent the children from getting hurt but at the same time encouraging them to explore. A great deal of understanding, patience, warmth and sympathy are required of the pre-school teachers. The whole programme of the school revolves around the interests of the children and hence a close bond between the teacher and the children is a necessity in pre-school.

AGENCIES FOR PRE-SCHOOL EDUCATION

The problem that arises next is with regards to the agencies that should run these courses. The course at the lower level is run by many an institution in the country. Some of them are good but some are not up to the mark. Certain uniformity in teacher-preparation is necessary and to meet this end, the only possible way is to have a body to whom these institutions will be answerable. A recognition on the part of the Government by way of grant-in-aid will enable them to check on the quality of training. An All India Association of Pre-schools, if formed, can also influence the pattern of training. The personnel, available for the training programme and the existence of a good laboratory nursery school to serve the needs of the trainees should be the main criteria that judge the eligibility of an institution.

Only the universities or the teacher training colleges can take up the advanced course. It needs personnel with special qualifications and special facilities by way of modern equipments are also necessary. Since the ordinary nursery schools may not have such facilities, it may be better if it is restricted to higher centres of learning.

Thus, shortly speaking, effective methods of child study together with modern techniques in pre-school education lay the foundation stone for the development of mentally and physically healthy citizens of the country. But however much the private agencies or the voluntary organisations try, no marked change can be made unless the Government or Municipalities take up the financial responsibility of the pre-schools. This will release the schools from their dependence upon the parents and let them free to run a more effective course. It can also lead to laying down certain basic requirements as regards the teachers, the equipment, the building etc. which will definitely improve the qualities of pre-school education in the country.

In spite of such problems, significant improvements are going on in the fields of child study and pre-school education. The general public have already realised the need for them. The Indian Council of Child Welfare and the Social Welfare Board are doing wonderful services in the

field. The National Council of Educational Research and Training have set up a Child Study Unit to carry out researches in Child Study and to run teacher training courses based upon the researches done. With improved facilities for teacher preparation and better organization in the nursery schools, the situation is bound to improve soon and significant achievements can be made in the field of pre-school education.

CHAPTER VI

STUDY OF THEORETICAL SUBJECTS

EDUCATIONAL PSYCHOLOGY

(Km. R. S. Devi)

[EVERYONE agrees that Educational Psychology, alongwith the Principles of Education, should be part of the core programme in Teacher Education. Yet, the effects of such learning is hardly visible, due to our implicit belief that all these are to be talked about – not acted upon. Km. R.S. Devi, of Central Institute of Education, invites the readers to have a look at the whole Training Programme, before assigning to Educational Psychology its proper place. Every subject and each topic is to be seen against the total context; further, the principles and theories are to be practised, not merely reproduced in the examination hall. Hence, it is necessary to have a new type of syllabus which integrates theory with practical work, and sessional work is to be given more weight than examinations at the end of the academic session. These and other suggestions which may at least set proper thinking, even if they disagree, are set down in the article which follows.]

INTRODUCTION

Educational Psychology is a compulsory paper prescribed as a part of teacher training course at every level. Like the Principles of Education, psychological principles too are supposed to have a pervasive influence in the teacher's approach to his subject and his pupils. He has to be constantly aware of the long-term and short-term objectives of his teachings and the best means to achieve them, with a continuous eagerness to assess the means he uses, experiment with new means and improve them as he goes along.

It is rather ironical that Psychology, which should be one of the most practical of all subjects, is to be covered under the "theoretical" part of the training programme. This paradox has had baneful result of relegating all learning in psychology to theoretical level, to be memorised and reproduced in the examination hall, and forgotten, thereafter, forever. In fact, the most usual comment heard by the

Psychology lecturer is that what he teaches is not practical, cannot be utilised in the school situations as they obtain. Surely, if this is correct, there is something wrong with Psychology itself. If it is not practical, and of no help to the teacher in the school, it is time we introduced some other subject more useful and eliminated Psychology.

THE TRAINING PROGRAMME

For, our training programme is impossibly over-crowded. The student teacher is overburdened with both theory and practical work, which hardly gives him time to breathe. This also is one of the reasons why the training colleges fail to have the expected impact, considering the time efforts and money spent on them. A crowded curriculum necessarily means less attention paid to the details, it results in superficial knowledge, with no depth of insight. If the training programme is to be more effective, a reorientation is essential, cutting down the course to the minimum essentials, emphasising depth, rather than breadth. Not the number of papers, or topics covered in each paper, but how well the trainee has understood and is able to apply the ideas he has been taught, should be the criterion for evaluation. Those subjects or topics not directly applicable to the situations confronting the teacher, should be ruthlessly rooted out of the course altogether.

To apply this Law of Parsimony – the minimum essential requirements – to the area of Psychology, leads one to the primary question, "why is psychology taught?" What are the aims and objectives of having psychology as a compulsory paper for teacher-trainees?" The clarity of the answer given to this question, will govern the whole course – content, methods of teaching and evaluation. Obviously, every subject is designed to give the learner some knowledge and skills in the area taught. A third aim, though usually named, but hardly meant or remembered, is that of attitudes. Psychology lecturer, at least, commits an un-pardonable error when he forgets this, while teaching the importance of "concomitant learning" to his students.

RELATION TO PRINCIPLES OF EDUCATION

The knowledge, skills and attitudes aimed at by all the other papers, should be influenced by educational objectives as a whole. The lecturer teaching Principles of Education, gives the goals; the lecturer in Educational Psychology has to tell his students what are the best means to achieve the objectives they have learnt to be desirable. This point is important, for if Psychology is to be meaningful and practical, the student

has to see its relation to the educational aims and objectives. There has to be much more co-ordination, nay, integration—between all the theoretical papers, if the student is to learn anything at all from the course he follows at the training college. It is because of the shift in emphasis from "subject-centred" to "child-centred" education, that understanding child has become so essential. It is because we are preparing for a democratic society, that study of "Individual differences" and "development of personality" have gained new importance. It is because we are progressing towards a technological civilization, effects of which are already visible in other countries, that "Mental Hygiene" and "Adjustment" have to be emphasized in education. And because we have to live in a Scientific Age, learning has to be redefined in terms of understanding rather than memorisations; reasoning rather than reproduction; adaptation to fast changing environmental situations rather than perseveration of once-formed habits.

Thus, in the light of the modern educational objectives, we want to send out a teacher who will in his turn, help to produce citizens for a democratic pattern of society, progressing towards an industrially developed civilization. This necessitates that the teacher has to guide, rather than teach or train, so that the child's personality be not stunted. This, in turn, implies that the teacher knows something about development of personality in general and is ready to understand the personality of the individual children under his guidance. Preparing for a changing social pattern would mean that the teacher be cognisant of the interaction between a group and the individual, the impact of culture on the personality and also examine the culture of which he himself and his pupils form a part. It is further incumbent on him to be aware of the changing norms and mores, even before the changes take place, foresee the tensions and conflicts these may arouse and arm the children under his care to face and tackle a reality which is continuously in a state of flux.

AIMS OF TEACHING EDUCATIONAL PSYCHOLOGY

In short, we may say that as a result of having learnt educational psychology, the teacher should be able—(1) To guide the child towards a more or less satisfying way of life, in which he would be continuously developing his own potentialities, in such a way as to contribute to the development of the groups of which he would become a member—the family, the profession, the nation, and humanity as a whole.

In order to do this effectively, the teacher should have gained the ability to (2) understand the child, his latent abilities, his goals, the

obstacles external and internal and see the child in the context of the present and future socio-economic and cultural environments. But understanding and guidance may be taken for granted by a teacher swayed by his own wishful thinking. Many of us, who still go on the same old path, do voice the question, "after all, what was wrong with the way we were taught? Everything was and is alright, but for these new fangled ideas." Hence it is necessary that the teacher is able to : (3) evaluate his own efforts at understanding and guiding the children objectively and realistically ; and (4) change his ways of teaching, guidance, approach, according to his findings.

One may well ask if these four aims are to be the result of learning just one subject—educational psychology. It certainly is not ; rather, the entire training programme will have to be reoriented, to achieve the aims as formulated. But, educational psychology is the one subject which can give the necessary knowledge and skills, supply the basic general information and background.

THE SYLLABUS

The syllabus of educational psychology has to be redrawn, with the above objectives in view. Such an orientation would make the subject meaningful, related and practical to the trainee, to whom, today psychology "makes on sense." Thus, the new syllabus should have clearcut objectives defined in terms of knowledge, skills and attitudes, spelt out as far as possible as observable behaviour patterns.

Every topic included in the syllabus should be examined in the light of the specific purpose it is designed to fulfill, in the total context of the aims of teaching educational psychology, which are derived from the objectives of the training programme as a whole.

This may result in a new appraisal for we cannot include all that we consider important, due to lack of time. New priorities have to be thought out, discarding many pet topics to make room for the latest findings and theories. We may have to draw upon cultural anthropology and Social Psychology more, emphasize Group Dynamics and leadership roles, leave out Mc-Dougall, Woodworth and many other revered sages by whom we swear.

Examining the syllabi of some Universities which try to keep abreast of the development in the subject area, we find they tend to be additive rather than discriminative. As we come to realise the importance of fresh discoveries, they are added on to the old topics, without trying to integrate or relate the topics to each other. Most of the syllabi still

exist in the era of the 'Williams'—Mc Dougall and James. The result is what may be expected—confusion worse confounded. We have to remember that the students who come for teacher training, hardly have any background of Psychology. Many of them have not yet learnt (a sad reflection on our University education) to read, understand and organise the gathered bits of knowledge into a coherent whole, let alone, critically examine them. Psychology, as a positive science, has the responsibility of developing the scientific attitude in its students. This is all the more important because of the conflicting theories and various schools of thoughts existent in this subject area.

Thus, the psychology lecturer's task is to express and explain psychological principles in simple, easily understandable language, to provide a framework and not go into detailed expositions. These principles are to be directly related to the learner's own experiences. After all, the subject matter of Psychology is the most intimate of all subjects. Whether dealing with learning, personality, intelligence or mental hygiene, everyone of these topics has a direct bearing on the real life-situations encountered by the student-teacher. Hence, the lecturer has to relate what he teaches not only at verbal level, by quoting examples from everyday life, but ask the students to observe and bring instances which corroborate or contradict the theories and principles he has taught in the class-room.

PRACTICAL WORK

So, practical work forms an integral part of psychology curriculum. Every experience in the training college and practice teaching school may be utilised to increase skills in observation, interviewing, recording and interpretation. They supply also occasions to apply and test the information acquired. Practical work in Educational Psychology is not to be confused with carefully performed experiments in the laboratory with nonsense syllabus and mirror-drawing—though that may be better than nothing. But the teacher's laboratory is his school and class-room; he has to develop the scientific approach in dealing with professional situations. He has to learn to suspend judgment till all relevant data are collected; he must gain ability to discriminate between valid and invalid data; he has to critically examine the reliability of the data gathered, further, he has to be aware of the subjectivity involved in both collection and interpretation of data—he has to train himself to perceive the various compatible interpretations based on identical data; be on the lookout for the extraneous factors affecting a situation, try out how and which variables

may be controlled and how far they lend themselves to such control. All this cannot be brought home to the trainee, by experiments in the laboratory, however conscientiously performed. Such experiments only foster the feelings of unreality and artificiality, while the main aim of psychology teaching is to show that it is empirical and practical, with reference to the ends one has in view.

TEACHING PROCEDURE

Lectures and practicals by themselves are incomplete, unless the students learn also to read widely and compare different views. The text-book approach should have never found a place at any stage of education; but that being unfortunately not the case, the would be teachers at least must realise the importance of a wider and richer background, before they can hope to pass on carefully considered and critically examined knowledge. In this way, different schools in Psychology is a blessing, as they force the student to know each of them and come to some conclusion after thinking. It is true that what usually happens is quite the opposite. The students tend to accept whatever school of thought is preferred by the lecturer. To offset this, it is essential to have the trainees read different books and have small group discussions as part of the regular timetable. Though it would be ideal to have this on every topic, considering the shortage of time and the vast area of subject matter, a few vital topics may be selected for this teaching procedure.

Thus, the teaching procedure is to undergo a radical change, integrating lecture in the class room, practical work including experiences and experiments in the practice-teaching school, wide reading of journals and more than one book on each topic, and group discussion based on all the above.

ASSESSMENT AND EVALUATION

To motivate the pupil-teachers to undertake all this would pose a difficult problem, in the absence of internal assessment. A few Universities have accepted partial internal assessment; Delhi has kept some marks exclusively for psychology practicals; with the wider acceptance of this principle, at least 50% of weightage should be given to sessional work. This assessment should evaluate the application of knowledge in actual situations and the skills gained, rather than mere theoretical mastery at verbal level. It would be highly desirable if the attitudes of the students could also be given some weightage, for, in actual teaching, these count as the most important factor. No amount of knowledge or skill will benefit the school children, unless the teachers are willing to

utilise what they know ; on the other hand, given the willingness, they will somehow or other acquire the knowledge and skills.

NEED FOR A GUIDANCE PROGRAM

Hence, the training college staff as a group, and the educational psychology lecturer in particular, should pay much more attention to attitudes and personality of the trainees. Many of them come with cynicism and apathy born out of frustration; the lecturer who talks to them about the mental health of the teacher would sound ironical, if he does not bestir himself to help his students to overcome frustration and face reality. It is very essential that personal and educational guidance be made an integral part of the training college programme. While a personal tutor would be the best person to do it in the average cases, the lecturer in educational psychology could help them who face more serious problems. Such counselling would immensely affect the utility of the course as a whole and carry conviction that psychological principles are to be acted upon, not merely talked about.

THE LECTURER AND HIS QUALIFICATIONS

This necessarily implies a much more careful selection of the lecturer concerned. He should be a person who keeps direct personal contact with everyone of his students ; willing to give them more time than other members of the staff ; able to observe them in the class-room and school situations, and give guidance realistically, with reference to the actual situation faced. A person with a post-graduate or even doctorate degree in General Psychology cannot fulfill this task, however, brilliant he be. He certainly should have a good academic background, and be of above average intelligence. But a first class or doctorate is no valid criterion of teaching or counselling ability. His own personality and attitudes, social sensitivity, human relations, mental alertness, are important factors to be considered by the selection board, at the time of appointment. He should be a person who has had some experience with children in school situations. He should also have himself undergone training, so that he has a rich educational background, and be able to relate theoretical principles to the professional situations faced by his students.

OTHER FACILITIES

Naturally, some time will have to be provided in the regular timetable for group discussion, practical work and guidance, if the above suggestions are to be carried out. With some reshuffling and imagination it should not be too difficult.

Library facilities will have to be much more expanded if the students are to learn to consult journals and give up a single text-book approach to studies. The lecturer too will have to keep himself alert and abreast of the latest developments in his field.

The lecturer may also have to think out his own objectives and work out his own tools of evaluation to measure their attainment. He may thus act as a pioneer in an area, which has hardly been tackled actively till now, anywhere in the country.

A SUMMARY

To sum up: (1) The whole training programme needs to be reappraised and overhauled in view of our educational objectives and national requirements.

(2) The syllabus should be ruthlessly curtailed to include only the bare minimum essential papers and topics, which would directly help the trainee to become a better teacher. A few topics well learnt are better than a number of topics learnt only at verbal level. Internalization of learning is to be aimed at rather than reproduction and recall.

(3) The teaching methods should comprise of lectures, wider reading, group discussion and practical work.

(4) The school, the class rooms and the training college, form the laboratory for practical work in Psychology.

(5) Attitudes need to equally, or even more emphasized than mere knowledge and skills.

(6) The Scientific approach in all professional situations is one of the main aims of teaching educational psychology. The practical work should be oriented to this aim.

(7) Internal assessment may be necessary to induce the trainees to undertake such sessional work.

(8) A guidance service should form an essential aspect of every training college.

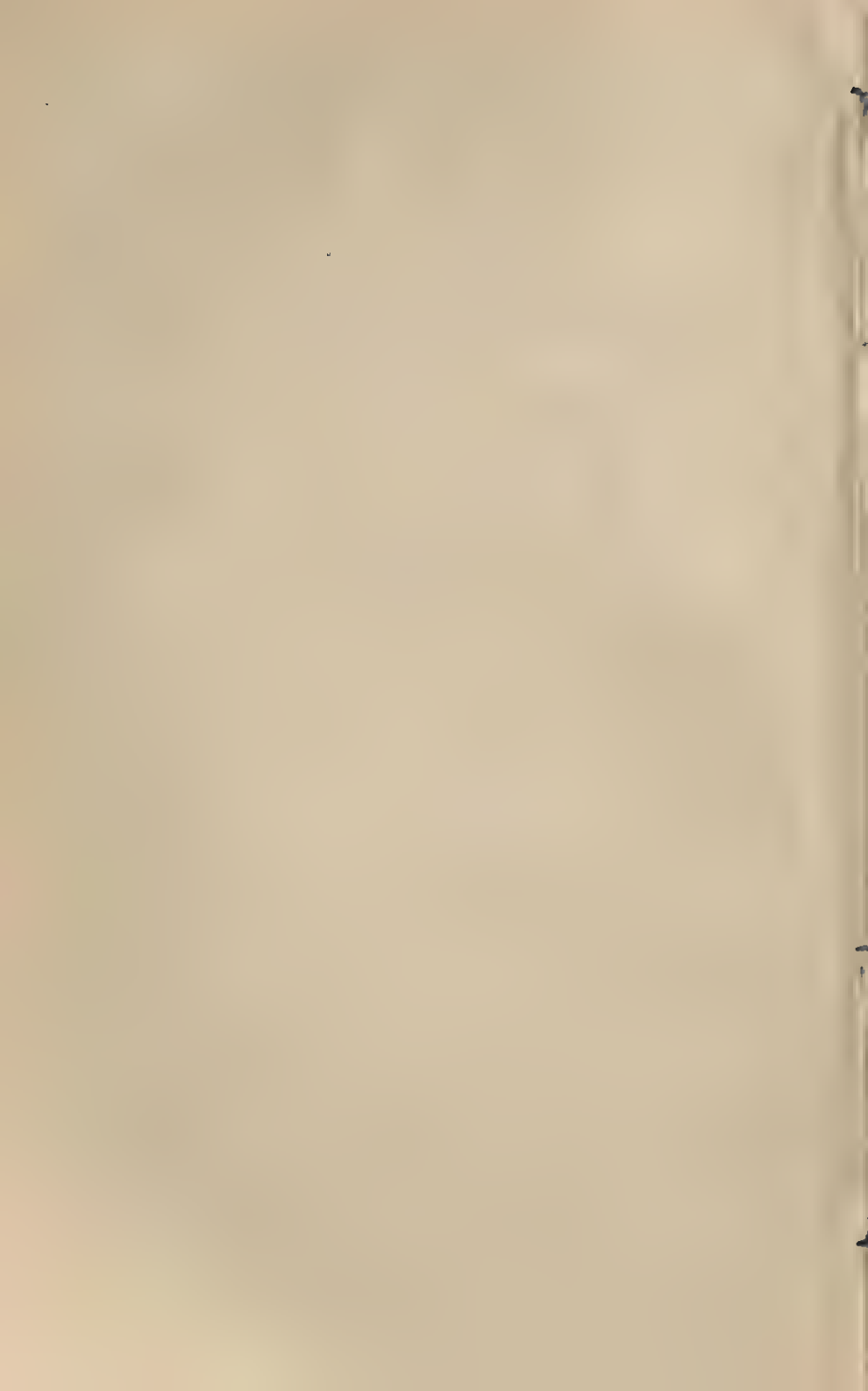
(9) The lecturer in educational psychology has the heavier responsibility of conducting and organising this service. Hence, he should have a wide and rich educational background, an approachable personality and keen social sensitivity. His academic qualifications and personality should be given equal importance.

(10) Facilities are to be provided in the timetable for such a reorganisation in teaching. Another essential requirement is that of a fairly good-sized and well-stocked library.

A good teacher, willing and enthusiastic, may be able to work out innovations, without such facilities. It is for the training college lecturer to inspire such enthusiasm, by his own example, rather than by precepts.

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CHAPTER VII

THE TEACHING OF THE HISTORY OF EDUCATION IN OUR TEACHER TRAINING PROGRAMME IN INDIA

(Bhagwan Dayal Srivastava)

[*"HISTORY of Education" differs some what from the previous two papers discussed, as it has aroused a lot of controversy as to its actual importance, and relevance to a teacher education programme planned for Secondary School teachers. Shri B. D. Srivastava of Vidyabhawan Teachers' College, Udaipur, critically examines the position obtaining today with reference to course-content, teaching methods and evaluation. He formulates the objectives of such a course in the light of the changing concepts; shows how it may help in giving the trainee a clearer perspective and better understanding of the problems he is called upon to face in everyday professional situations. While making the teacher education programme practical and meaningful, one should remember that there are subjects which give significance to the whole living experience, though one may not be able to pin-point the application to a specific problem or context. The re-orientation outlined in the article here is thought provoking and elucidative.*]

INTRODUCTION

We have been increasingly conscious, in recent years, of the inadequacy of our whole programme of teacher education in India. Both the Central Ministry of Education and the All India Association of Training Colleges seem to have been very much perturbed about it; and there was a serious move recently to study the impact of the Teachers' Colleges on the secondary schools of the country as a whole. The Committee on Plan Projects of the Planning Commission has already sponsored an investigation into this problem in several States; and although a consolidated report of the findings of this Study Team is not yet available, from whatever little information that has trickled out, it appears that the situation is much worse than feared. The gravity of the situation never came home to me with greater force than when I came into personal contact with hundreds of secondary schools and their teachers in Rajasthan during my

seven-year period of the Co-ordinatorship of the Department of Extension Services, Vidya Bhawan Teachers College, Udaipur. There was little or no evidence of any impact of our pre-service training programme on the ideas or actual practices of most of the trained teachers that I met. Among measures of reform that have been suggested or partially implemented at some places, there is greater emphasis on practice teaching. The principle has begun to be generally accepted that whatever does not directly and obviously contribute to the teacher effectiveness in the school must be eliminated from the training course. From this narrow point of view, the theory paper called *The History of Education* has been the most vulnerable. While it has been obvious to every trainee that *Educational Psychology*, *The Principles of Education*, *The General and Special Methods of Teaching*, etc., can help him in becoming more efficient, it has not been so obvious, even to the specialists, how the teaching of the *History of Education* can contribute to a teacher's effectiveness in the class-room. While some educationists have advocated its complete elimination from the training course, others have wanted its scope to be confined to the study of a few current problems of Indian education. Indeed most universities have changed the title of the paper which is now called "The Current Problems".

THE USUAL SYLLABUS

Before Independence, the *History of Education* paper included:

- (a) An account of the modern system of Indian education, with or without the study of some the features of the mediæval and ancient systems; and
- (b) An out-line of the History of Western Education or the ideas of great Western educators like Rousseau, Pestalozzi, Herbart, etc.

The Diploma in Education course of Patna University in 1937-38 may be regarded as substantially representative of the practice elsewhere in Pre-Independent India. The paper was called "The History of Educational Practice", and the syllabus consisted of the following:

Part I

The evolution of British educational policy in India; official documents on the subject.

The present state of primary and secondary education in India and specially in the Province of Bihar and Orissa (for both boys and girls); their defects; suggested reforms.

A very brief survey of other fields of Indian education, University, Technical, Oriental, Vocational, at the present time.

Part II

A short history of Western educational thought and practice, dealing particularly with Locke, Rousseau, Pestalozzi, Herbart, Froebel, Montessori, Spencer, Dewey.

A brief account of the national systems of education in England and the United States."

With slight modifications, the addition or elimination of a few items here and there, the syllabus mentioned above has been in use everywhere in India. In 1948-49, the syllabus in the *History of Education* of the L. T. Examination of Lucknow University included :

(1) "A study in out-line of the educational theories of Plato, Aristotle, Comenius, Locke, Dewey, recent development in education—Montessori, Dalton Plan.

(2) History of the Development of Education in India from 1815."

Even after Independence when the name of the paper was changed to "The Current Problems in Education," the substance of the old content remained unchanged. Only the word "problem" occurred here and there more frequently with several items of the syllabus, such as "The problem of religious and moral education—its history, need and importance, difficulties in introducing it" (Rajasthan, 1963).

The latest development has been the syllabus proposed by the National Council of Educational Research and Training for the one-year training course in its regional colleges at Ajmer, Bhopal, Bhubaneswar, and Mysore. The usual papers of the *History of Education* and the *Principles of Education or Educational Philosophy* have been combined under the name "Philosophical and Social Foundations of Education" with two papers, each carrying 100 marks. The part B of this area is concerned with the *History of Education*, the prescribed syllabus being hardly distinguishable from the old stuff, except in greater emphasis on a few specific problems of Indian education which have been added. Here is the proposed syllabus:

"Historical background of Indian Education up to 1950; ancient and modern system of education, Macaulay's Minute and Wood's Despatch the Calcutta University Commission Report, Wood and Abbott Report.

"The development and problems of Indian education under five-year plans; Education and the Constitution of India; the Secondary Education Commission; Expansion of educational facilities; the organi-

sational and administrative set-up at various levels; professional and governmental agencies for promoting educational development at various levels.

"The following educational problems;

- (1) Discipline and democracy;
- (2) The concept, function and the future of public schools in India;
- (3) The language problem;
- (4) National integration;
- (5) Education for international understanding;
- (6) Literacy in India and some selected countries;
- (7) Educated unemployed;
- (8) Socio-economic status of teachers in India and abroad."

Thus the efforts to reorganise the syllabus of the *History of Education* at the Bachelor's degree level have not brought about any material change in the essential content of the course. The change of the title of the paper to "The Current Problems of Education", and the proposed change to "The Philosophical and Social Foundations of Education" do suggest a certain shift in emphasis and approach; but in the absence of a suitable revision, or at least a rewording, of the syllabus content, neither the general run of the members of the Teachers' College staff nor the trainees are likely to change their methods to any appreciable extent. At the Master's degree level also where this paper exists, the same things have been taught, though in much greater detail. Even the paper called "Comparative Education" has generally degenerated into unrelated and independent accounts of the development of education in different countries, instead of a study of the geographical, political, social and economic factors that are responsible for their different systems, or even for the different solutions of common problems.

THE USUAL METHODS OF TEACHING THIS PAPER

When I was under training at one of the secondary training colleges in early forties, the chief method of teaching this paper, as other papers, consisted in a series of lectures on the various items of the syllabus. These lectures gave a very inadequate, generally uncritical, account of the state of education during various periods and a very brief summary of a few educational documents like Wood's Despatch, the Report of the Indian Education Commission of 1882, the Calcutta University Commission report, etc., most of these reports in original not being available in the college library. This method has essentially remained unchanged through all these years with the only difference that

the drudgery of the training college lecturers has been considerably relieved by a number of books on the market, giving a chronological account of educational development and detailed summaries of the reports of the various committees and commissions on education appointed by the Central or Provincial (now State) Governments. These books have made the study of original reports unnecessary even where some of these are available. Some of these books, like T.N. Siqueira's,¹ S.N. Mukerji's² or mine³, have taken up various aspects of modern Indian education one by one and discussed their development and problems, instead of taking up one period at a time and discussing everything that happened during that period. Even these books have only reorganised the material easily available elsewhere in a manner which is more easy to master and retain, specially for the purposes of the examination. A standard book has yet to be written which discusses the problems and developments of modern Indian education as these have been affected by the political, social and economic forces in the country; I mean, a cultural history of Indian Education on the lines of Butt's "Cultural History of Western Education".⁴

Thus from the syllabus content of the paper—*History of Education*—or the method of teaching it generally employed everywhere, it is clear that the main aim has all along been the knowledge or memorisation of a vast amount of factual data or other people's conclusions or opinions based on them.

EXAMINATIONS

Since examinations in India have greatly influenced the syllabuses and methods of teaching them at all levels, let us study what we have tried to test through university examinations in the *History of Education*. In most of our examinations, we have generally tried to test candidates' knowledge of events or of the substance of important educational reports. Although for purposes of illustrating this point we are selecting at random questions on this paper set in different years at the B. Ed. examination of the University of Rajasthan, they may be regarded as typical of the general approach everywhere :

- 1 Siqueira, T.N. The Education of India, Oxford University Press, 1943.
- 2 Mukerji, S.N. Education in India—Today and Tomorrow, Acharya Book Depot, Baroda, (4th Ed.), 1961.
- 3 Bhagwan Dayal : The Development of Modern Indian Education, Orient Longmans, Bombay, 1955.
- 4 Butts, R. Freeman : A Cultural History of Western Education, McGraw Hill Book Co., New York, 1947.

(1) State the main recommendations of the Abbott-Wood Report, and discuss their practicability in the conditions prevailing in our country at present (1951).

(2) Outline the recommendations of the Hunter Commission (1882) and discuss its influence on the subsequent growth of secondary education in India (1951).

(3) Give in outline the recommendations of the Calcutta University Commission for the reorganisation of secondary and university education. How far were these recommendations put into practice (1952).

(4) What are the developments in Indian education since 1947? Give in outline the main recommendations of the Radhakrishnan Report (1952).

(5) What are the main educational targets fixed by the Second Five-Year Plan, regarding secondary and technical education? How far do the outline projects show a realistic approach to our educational problems in these two fields (1960).

(6) Discuss the recommendations of the Secondary Education Commission regarding improvements in the economic and social status of the teacher (1961).

(7) What is a public school and what are its special features? Discuss the place of public schools in Indian education and their contribution to it (1961).

(8) Describe the educational ideals of the Gurukul system or of Santiniketan, and show what improvement in your own school can be brought about by placing these ideals before your pupils (1962).

(9) Estimate the effect of the reorganisation of secondary education in Rajasthan. What suggestions do you have to offer for complete success in the scheme? (1962).

(10) Explain the effect of Western educational thought on the present day educational thinking in India (1962).

From these few examples it appears that the questions in early fifties when the paper was called the *History of Education* and those during the last three years when it has been known as "Current Problems" are not essentially very different in nature. The latter continue to demand factual accounts of events, although some of these events happen to be recent ones. No real understanding of problems, no searching analysis of the political, social and economic forces that are influencing educational development and creating specific problems is needed; and the students need not formulate their own opinions or points of view.

Indeed, some questions, like number 10 given above, are so general and vague that the students cannot go far wrong no matter what they decide to write.

Thus from this brief review of the syllabus, methods of teaching and examination in this theory paper over a number of years, it is clear that we have not been able to bring about effective reform in spite of our great desire to do so. We now propose to discuss a few specific suggestions to remedy some of the main defects.

THE MAIN OBJECTIVES OF THE HISTORY OF EDUCATION PAPER

We have all along been broadly conscious of the main objectives of teacher education, but never actually tried to spell them out in concrete, specific terms. We have vaguely assumed that the aim of our teacher-training programme is to produce more effective and efficient teachers who understand children and the educational problems of the country; and we have even more vaguely assumed that the actual programmes and practices in teachers colleges are somehow calculated to achieve this broad aim. We have never cared to find out what exactly "effective and efficient teaching" implies, how exactly the necessary skills and knowledge may be given and tested. It is recently that the Directorate of Extension Programmes for Secondary Education, New Delhi organised at a few places like Vinaya Bhawan, Santiniketan,⁵ Vidya Bhawan, Udaipur⁶, etc., a few seminars of the Staffs of the Teachers Colleges in the State concerned to consider their whole programme in the light of the new concept of Evaluation. It is beyond the scope of this paper to deal with the whole programme of teacher education from this angle; but we shall examine the implications of the Evaluation Approach to our theory paper—the *History of Education in India*.

Some of the objectives of teacher education which may be best achieved through this theory paper may be summed up as follows:

- (1) Understanding of how historical, political, economic and social forces determine the educational system of a country; specially how these forces are determining the development and problems of education in India;
- (2) Understanding of the values which Indian Society has cherished through the ages and how these may be reconstructed to form the basis of the national system of education in a fast changing scientific and technological age;

5. From the 18th to 24th October, 1962.

6. From the 3rd to 9th November, 1962.

(3) Knowledge of the administrative and organisational structure of education in one's own State and in the country as a whole;

(4) Knowledge of the educational systems in ancient and mediæval India and of the applicability or otherwise of some of their essential features to modern conditions;

(5) Ability to discuss specific educational problems in India and to suggest a practical course of action in a given situation;

(6) Developing the trainee's own point of view with regard to various problems and making them realise their own role in finding out the solutions to these problems;

(7) Ability to locate and analyse problems and arrive at conclusions which may be verified by the available data;

(8) To understand what modifications are needed in the solutions of similar problems in other countries before they may applied to our own conditions; and so on.

There is a great scope for improving the statement of these objective in more specific terms. My aim is to emphasize the need for formulating these objectives and accepting them on the basis of common agreement.

THE REORGANISATION OF THE SYLLABUS

Once we are clear about our main objectives, even the old or existing syllabus of the *History of Education* or *Current Problems* can be used to good purpose. Instead of giving the trainees a summary of the recommendations of an Educational Commission or expecting them to memorise these, we would examine the historical, economic and social forces that created a problem, regard the Commission's suggestions as probable solutions, see whether they are practicable, and, if they have not been implemented adequately, find out the reasons for this failure. The books on the subject will also devote more space to these aspects than to the detailed summaries or entire reproductions of important documents which are easily available elsewhere. So the real problem is not one of changing the syllabus content so much as one of using it intelligently for achieving some of the clearly formulated and generally agreed goals.

But in order to ensure the approach advocated above, it is necessary to define the usual syllabus in a different manner. For example, instead of saying, "Ancient and Mediæval Systems of Indian Education," we may say, "In what ways were the ancient and mediæval systems suited to those ages? Why has the Gurukul System not succeeded in modern

India, in spite of great efforts to revive it? What features of the ancient system can be suitably adopted in modern times and with what modifications?" I suggest that the items of the syllabus should be so worded as to suggest the exact nature of the problems involved and compel the staff and students to examine the political, social and economic forces which were responsible for creating those problems. The important educational documents like Commission reports, plans, etc., are to be included as suggestions to the solutions of certain problems and not as something that must be memorised for their sheer content.

Having ensured this method of defining the items, the syllabus of the *History of Education* should cover the following areas;

- (i) The Ancient and Mediæval periods;
- (ii) The Modern period—from the advent of the British to the present day;
- (iii) A few specific problems of the present day. How similar problems have been solved by some other countries and what we can learn from them.

It will be adequate, as the first step, if we define more clearly, in the light of these observations, the first part of the syllabus suggested by the National Council of Educational Research and Training for the second paper of the area : *Philosophical and Social Foundations of Education in India*⁷.

As the change of the name of the paper also suggests a change in the whole approach, the title suggested by the National Council may also be adopted.

THE METHOD OF TEACHING

While it may not be possible to dispense with lectures altogether, they should be reduced to the barest minimum and given at the request of the trainees on the problems suggested by them. An annotated bibliography in two parts (minimum and desirable) should be given to each student. The entire syllabus should be divided into suitable assignments to be completed by everybody during specified periods. The best essays may be read out to the whole class by the students concerned and discussed. One of the problems in the assignment should require the collection and interpretation of data. In short, the chief methods suggested are three or four seminar and tutorial periods a week. Each such period should be longer in duration, say one hour and a half.

7 This syllabus has been reproduced earlier in this book on page 87.

EXAMINATION OR EVALUATION

As we cannot abolish external examination altogether for some time to come and base our assessment entirely on the sessional work of each candidate, I suggest fifty-fifty as weightage for internal and external assessment. While internal assessment should be based on the candidates' reading and written assignments, their participation in class discussion and seminars, etc., the external examination should find out students' ability to analyse and attack specific problems of education on the basis of available data. Both the internal assignments and the external paper must ensure that the candidates have adequate understanding of the political, social and economic forces which, to a very large extent, determine the educational system and problems of every country.

CONCLUSION

It is not enough to be vaguely conscious of the broad objectives of a course of instruction. We have all along assumed that the theory paper—*History of Education in India*—would somehow develop better understanding among the trainees of the educational problems of the country. When this expectation was not fulfilled, we made frantic efforts to revise the syllabus or change the name of the paper. But a syllabus is only a means to an end, a way to achieve an aim. Unless the objectives are very clearly and specifically defined, satisfactory guidance in framing the syllabus, in the methods of instruction and evaluation is impossible. We have therefore, tried to make a few suggestions along these lines to form a basis for further discussion—the main purpose of the *Symposium on the Training of Secondary School Teachers in India*.

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CHAPTER VIII

AUDIO-VISUAL MATERIALS IN TEACHER EDUCATION

(S. L. Ahluwalia)

[INTRODUCTION of "realia" is essential to make education realistic. Audio-Visual education, though gaining momentum in our country, is still considered a "fad" by the majority. With Television, Radio, Press and other stupendous mass media of communication at our service, we are only displaying our own inefficiency and ignorance, if we still dare to ignore the tremendous possibilities offered to educate the vast mass of illiterate people inhabiting the globe. Here in this article, Shri S. L. Ahluwalia, of the National Institute of Audio-Visual Education, spells out in detail a syllabus for our teacher trainees which will equip them to exploit local resources imaginatively and realistically to make their teaching more effective and interesting.]

ROLE OF COMMUNICATION IN EDUCATION

Education is an active process of socialization and learning no longer remains as an individualized and centralized mental process. Learning in a social setting has various ramifications and is influenced by the total field of communication. Communication is a process of mutual interaction through the channels of various cues and symbols and its aim is to achieve a basic commonality of experience in order that it may become socially meaningful.

The modern educator is most vitally concerned with the phenomena of interpersonal communication. He has set himself to the challenging task of helping students achieve desired social and vocational adjustment through democratic learning experiences based upon the needs and interests of the children. With the availability and currency of multifarious media of communication, a rich variety of means can be harnessed to achieve desired goals in education. It is important for effective communication to fit the medium to the goals.

In the entire process of communication, the contribution of audio-visual aids or materials stands out prominently. They constitute and vitalize the fundamental channels of communications. Since audio-visual experiences of many kinds crowd the waking hours of school children,

the modern educators is becoming more and more conscious of the effective audio-visual instruction.

IMPORTANCE OF AUDIO-VISUAL MATERIALS TO TEACHERS

Audio-Visual materials and techniques are such special kinds of communication devices and procedures as motion pictures, filmstrips, television, radio, recordings, graphic illustrations, school trips, models, and demonstrations. They comprise a vast array of instructional materials and cover a wide range of aids from films to illustrated books and from teacher-made inexpensive aids to the commercially produced materials and equipment.

The basic characteristic of these materials is their quality of concreteness. They reinforce the spoken or written words with concrete images and thus provide rich perceptual experiences which are the basis of learning. Audio-Visual materials make learning less non-verbalistic and thus reduce the boredom of mere verbalism. Modern education emphasizes a richer provision of concrete experiences in the curriculum so that these may lead to the development of abstractions and generalizations.

Audio-visual materials offer a reality of experience which stimulates self-activity on the part of the pupils. Such experiences are not being easily secured in other materials, they contribute to the depth and variety of learning and thus make learning more permanent. Due to the additional experiences and techniques being offered by the teaching aids, a broader curriculum is established, and increased meaning is brought to current experiences. The teacher, in order to utilize this broad curriculum needs a knowledge of the unique contributions of different types of materials, of fundamental principles and techniques of utilization and of reliable methods of evaluation.

PRESENT STATUS OF AUDIO-VISUAL RESOURCES AT THE TRAINING COLLEGES

The medium and the technique of teaching is equally important, if not more, than the content of teaching. But the emphasis in training colleges is still on content courses, the teaching is bookish. The facilities for rich laboratory experiences in the preparation and use of audio-visual aids are poor. There is a woeful lack of gradual use and integration of the teaching aids in the practice teaching assignments for student teachers.

The lecturers of the training colleges are mainly to blame for this woeful neglect of and apathy towards audio-visual aids. They are themselves not trained in the techniques of preparation and utilization of these aids. They are not yet fully conscious of the fact that the new media of

communication offer results which are more lasting, more potent and more immediate.

The references in the methods classes towards the use of audio-visual aids are sketchy and verbal. The teachers tend to teach as they are taught. Lack of enthusiasm and seriousness about the use of audio-visual aids on the part of instructors in the training colleges adversely influences the attitudes of the prospective teachers towards these. Neither the instructors nor the student-teachers have ever seen or developed the visual aids in entirety, leaving alone their constant use.

With the growing emphasis being placed on audio-visual aids, the training colleges have made a provision for preparing some aids from the point of view of assessment. Thus the students are driven to a position when some charts and models have to be prepared. They have necessarily to be used in the final assessment sessions of practice teaching classes. This relegates the teaching aids to a mere secondary position, making the lonely art instructor solely responsible for developing some laboratory experiences for the preparation of aids. In a majority of cases, during final examinations, the charts and models are got specially prepared by the students from agencies outside the training colleges. Thus there is the danger of the aid being a fad rather than a necessity. How can such prospective teachers be really serious about using the visual aids? They seldom experience the thrill of teaching through a creative, purposeful, and integrated use of aids while teaching. The visual communication, by resorting to a judicious selection, persistent and planned preparation of teaching materials, does not come to them as naturally as mere verbal instruction. The traditional methods of teaching are easy while the creative audio-visual approach to teaching requires persistent effort and application. The training colleges have failed to develop the skills and competencies needed by the teachers for revitalizing the curriculum through an effective use of audio-visual aids.

In most of the training colleges in India there is a poor collection of commercially produced aids. Leave alone using these in teaching, the students are not fully exposed to these aids. Thanks to the Extension Service Departments, sponsored by the Directorate of Extension for Programmes of Secondary Education, (Where such departments exist in Training Colleges) a representative selection of audio-visual aids such as maps, charts, models, filmstrips, can be seen by student teachers. These departments have started organising short-term workshops and seminars on the use of audio-visual aids as a part of their in-service teacher education programmes.

BASIC TEACHER COMPETENCIES IN AUDIO-VISUAL AIDS

Audio-Visual materials supplement the teacher, they do not supplant him. The aids alone cannot accomplish the task of education. The teacher is the pivot of all teaching. Visual aids, when properly utilized, develop concrete perceptual experiences for learning. In the use of audio-visual aids, the teacher should be clear about his teaching objectives and then make the right use, of the right materials, at the right place and at the right time. He should have learnt the 4 R's of audio-visual instruction.

At the training colleges, it will be ideal to include a compulsory paper in audio-visual aids in the syllabi at all levels. If this is not possible for the present, an optional paper for specialization may be included for those who are eager to take it up. Otherwise some units of theoretical and practical work concerning these materials is absolutely necessary, if the prospective teachers are to teach effectively. This can be a part of the methods papers. The contents of an optional course in audio-visual aids are analysed in some of the subsequent pages. The teachers should have some basic understandings and skills in this field as under :—

1. Basic knowledge of theoretical aspects of audio-visual instruction—Perception, as the basis of learning; advantages and limitations of audio-visual aids; principles underlying the successful use and integration of aids.
2. Preparation and utilization of graphic aids—Simple techniques of sketching, use of flanneolograph and chalk board, basic principles of display, preparation of charts, graphs and flashcards.
3. Preparation of simple and inexpensive models and other three-dimensional aids—relief models and globes, working models, dioramas, puppets, peep and scroll boxes.
4. Principles and practices involved in developing school museum, special subject rooms and exhibitions.
5. Use of fieldtrips, demonstrations and other direct and purposeful experiences.
6. Utilization of school broadcasts and educational films.
7. Sources of audio-visual materials.
8. Operation of equipment—16mm film projector, 35mm filmstrip and slide projector, epidiascope and tape recorder.

SUGGESTED USE OF AUDIO-VISUAL MATERIALS IN TEACHER EDUCATION

(a) Audio-Visual aids are the tools of the educational profession. They should permeate the entire teaching-learning process in the training colleges. To be able to impress by their own example, all instructors at the training colleges should themselves use these aids in all their classes.

All the instructors should be familiar with the use of different types of instructional aids. This may necessitate the conduct of a regular series of in-service training courses for training college instructors at the National Institute of Audio-Visual Education.

(b) All the training colleges, should have an Audio-Visual Unit or an Instructional Materials Centre.

This unit should have a library of selected charts, maps, models, dioramas, filmstrips, pamphlets and books. There should be a section for outwork for developing graphic aids. A small corner may contain workshop tools and materials for preparing models. Some standard audio-visual equipment should also be kept. If possible there should be a museum of instructional materials in all teacher training institutions. The purposes of such a unit will be :

- (i) to provide a laboratory teaching situation for preservice training of teachers.
- (ii) to meet the utilization needs of the college classes.
- (iii) to serve as an Extension Service Department.

A qualified lecturer who should have taken preparatory and advanced courses in audio-visual instruction, listed in the subsequent pages, should be the head of the unit. He should be assisted by an Artist and a photographer-cum-projectionist for the preparation & utilization of the aids.

It is important for the Audio-Visual Unit to prepare teaching materials for the day to-day needs of the instructors. Apart from this and other functions, one of the major functions is to develop correlated inexpensive aids, reference materials and teaching kits as under :

- (1) Varieties of tear-sheet files, pictorial albums, scrap books, etc., for reference.
- (2) Specimens of correlated sets of aids for different topics and different subjects, such as a set of drawing and sketching materials for chalk-board work, flannelographs for different subjects ; collapsible dioramas with cut-outs, etc.
- (3) Study kits & study packages on different themes and topics.
- (4) Teaching kits for different topics of the college curriculum.

PROPOSED PLAN OF UNITS AND COURSES

The task of building an adequate audio-visual training programme into the already crowded curriculum of the training institution is not an easy one. The problem of integrated versus separate courses in audio-visual methods is the basic one. The separate course idea may not appeal

to some training college authorities as they may feel that audio-visual materials and methods are best studied in their functional relationships to subject matter and to learning. No doubt, ultimately, complete integration of audio-visual materials with different aspects of the activities of prospective teacher's experience is ideal. Well-planned, purposeful utilization of the materials should be characteristic of the whole instructional programme.

Under existing circumstances, separate optional courses for some of the prospective teachers are essential, to raise the level of competencies of some of the teachers. They will inspire and motivate others towards greater utilization of aids. It may not be possible to develop a basic full-fledged course for all the trainees, though ultimately such a procedure will raise the general standard of teaching in schools. Some basic units of audio-visual materials can be included in the methods courses. To develop the necessary skills in the preparation of materials, laboratory experiences can be planned.

In the subsequent pages, a blue-print of the contents of two courses in audio-visual education is suggested :—

(1) Paper on Preparation and Utilization of Audio-Visual Materials in Instruction.

This is a preparatory course at the B. Ed. level. This can be included as one of the optional papers in syllabi of teacher training institutions. This will facilitate the development of a sound basic framework of knowledge in the subject. The prospective teacher, with the course background can easily coordinate the audio-visual activities of a big secondary school.

Some units from this paper can be selected and included in the methods courses. The emphasis should be on the use and preparation of simple and inexpensive aids.

(2) Paper in Advanced Production Techniques for Audio-Visual Materials.

This is an advanced course and is meant to be included, as an optional paper, in the M. Ed. Courses. These who have specialized in audio-Visual aids, at the advanced level, after having taken the preparatory course, will be adequately suited to be the heads of the audio-visual units of the training colleges.

AUDIO-VISUAL MATERIALS IN TEACHER EDUCATION

PAPER ON PREPARATION AND UTILIZATION OF AUDIO-VISUAL MATERIALS IN INSTRUCTION

Objectives :

1. To develop the elementary theoretical and psychological aspects of audio-visual education as these are analyzed and elaborated in relation to the basic details about the learning process involving the use of audio-visual materials and the utilization, production, evaluation and administration of these materials.
2. To Create an awareness about the techniques of utilization of audio-visual materials in teaching-learning situations to enrich the curriculum.
3. To develop professional readiness to select or develop audio-visual aids for improving and revitalizing learning.
4. To develop skill in preparing simple and inexpensive graphic materials, photographic aids, etc.
5. To develop skill in maintenance and operation of audio-visual equipment.

CONTENT OF THE COURSE

Unit 1. The theoretical and psychological basis of audio-visual materials of instruction.

1. The objectives of this unit is to build the frame-work of theory concerning the audio-visual materials of instruction and their role in the learning process. It will develop the psychological principles involved in the use of these materials and will concentrate on the phenomenon of perception as the foundation of learning.

The place of audio-visual instruction in the curriculum and the ultimate learning process will be highlighted. It will emphasize the value of concrete imagery and purposeful experience in learning.

The principles underlying the successful use and integration of audio-visual aids will be analyzed clearly, including various aspects of utilization as well as the limitations of the aids.

2. The basic contents of the unit,
 - (i) The process of communication, Theories of perception and the learning process. Problems of verbalism and teaching with illustration.
 - (ii) The meaning of audio-visual instruction. Types of audio-visual materials. The core of experiences. The functions of audio-visual aids in learning.

- (iii) Historical development of the audio-visual concept in education. New trends in audio-visual materials
- (iv) Principles of utilization and evaluation of audio-visual materials.

Some research studies in the use of efficacy of audio-visual aids.

Unit. II. Preparation and utilization of graphic aids.

1. This is intended to develop a general awareness and appreciation of fundamentals of art and display, basically involved in the selection, utilization and preparation of graphic materials and displays.

Developing inexpensive and simple techniques and elements of sketching and reproduction with the help of simple devices and easily accessible equipment is basic to this unit. This unit primarily emphasizes that for the preparation of simple graphic aids one is not intended to be an artist.

2. **Basic contents of the Unit :**

- (a) Fundamentals of art and display.

1. Layout, lettering and colour; harmony, contrast, balance, emphasis and shape.
 2. Configuration patterns and formal and informal balance.
 3. Lettering techniques.

- (b) Sketching and reproduction techniques including screen process.

1. The opaque projector, simple pantograph, rubber bands, grid method, a piece of glass for perspective etc.
 2. Direct-processes for screen printing, using glue, gelatin and lithographic ink; small screen frames, using easily available nylon cloth.

- (c) Varieties of graphic aids and their preparation and use in different school subjects.

1. Categories of graphic materials: charts, diagrams, graphs, posters, cartoons, comics, maps, etc.
 2. Common types of charts and their characteristics.
 3. Types and advantages of graphs, principles of graphing and use of graphs in teaching.
 4. Fundamentals of posters and simple techniques of preparing and using poster materials.

5. Essential characteristics of cartoons and uses of cartoons.
 6. Developing tear-sheet files of sketches, pictures and illustrated materials taken from discarded journals illustrated magazines, pictorial booklets and allied materials.
 7. Preparation of flash cards, flip charts and flip books, etc.
 8. Preparation and utilization of graphic materials in different subjects of curriculum.
 9. Preparation and utilization of maps in the teaching of social studies.
- (d) Different types of display boards in instruction chalk boards, bulletin boards, tag boards, magnetic boards
 - (e) Flannel boards for elementary and secondary school subjects, preparation and utilization of flannel graphs or khadigraphs for different subjects.

Unit III. Preparation and utilization of three dimensional materials

1. Models and three-dimensional materials provide concrete learning situations. Their use is becoming increasingly popular in elementary and secondary schools. The objective of this unit is to provide basic skills in the preparation and use of some of these materials.

Real things give substance to learning experiences. Real things and their models, objects, specimens and samples and valuable learnings in connection with planning, classifying, organizing, mounting and displaying them are to be highlighted.

2. **Basic contents of the unit :**

- (a) Role of concrete experience in learning; characteristics of models and other three dimensional materials
- (b) Practice in the use of simple workshop tools for making models
- (c) Preparation of different types of models and dioramas and their use in different curricular topics. Techniques of using papier mache, clay, plaster of Paris, wires and metal sheets, perspex sheets for making models.
- (d) Objects and collection of specimens and their utilization
- (e) Preparation and use of study kits for different subjects
- (f) Preparation and use of puppets, mobiles, Peep and scroll boxes

(g) Construction of school aquarium, Planetarium, herbarium, etc.

(h) Organizing and using school museums.

Unit IV. Photography and filmstrips

1. The object of this unit is to develop the basic skills involved in photography. The students should be able to take simple photographs, develop and print them for use in different teaching situations.

They should be able to make simple photographic and hand-made filmstrips.

They should be sensitive to topics and situations in the curriculum where the photographic aids can be used

2. Basic contents of the unit :

(a) Basic principles of photography and use of equipment

1. Historical development of modern photography
2. Types of sensitive emulsion, camera-types and accessories, negative and positive materials; qualities of negative emulsions and bases used for negatives.
3. The darkroom, loading, safe-lights, exposure and speed of emulsions; developing latent images; preservative accelerator, restrainer and reducer in developer; stages of development-rinsing, developing, stop-bath, fixing, hardening, washing and drying; printing, trimming and mounting of prints.

(b) Study of equipment

1. Study and operation of different types of cameras.
2. Films and plates suitable for various types of special work, using adapters and making exposures, indoors and outdoor.
3. Developing negatives under different methods and controls.
4. Compounding photographic solutions.
5. Making prints from different negatives on suitable grades of paper.
6. Finishing photo prints, trimming and mounting.

(c) Preparation of photographic and hand-made filmstrips for different subjects

1. Engraving on black emulsion film.
2. Drawing on clear film.
3. Engraving and hand colouring.
4. Drawing with pen and brush.
5. Combinations of the above.

6. Writing of teaching notes and guides to go with filmstrips preparing a layout, working out the details of the subject matter, organizing the material under different units and frames in relation to the pictorial material.
- (d) Hand-made slides and photographic slide booklets for various subjects
 1. Preparation of slide booklets.
 2. Selection of logical sequence of slides-fitting the slides into special booklets.

Unit V. Utilization mass media in education.

1. School broadcasts and educational films serve as valuable instructional materials which are not being popularly used in our schools. The aim of this unit is to make the student conscious of their educational contributions by studying some selected school broadcasts and developing basic principles of the use of films. By screening some classical feature films and representative instructional films, the principles of photographic and æsthetic appreciation of films are to be analyzed.
2. Basic contents of the unit :
 - (a) School broadcasts and their use in the class-room; educational activities before and after the broadcast.
 - (b) Educational television and its use in different subjects.
 - (c) Educational films for teaching, various types of films; principles and practices in utilization of films; developing film appreciation and discrimination for schools and community.

Unit VI. Operation of different types of audio-visual equipment.

1. The aim of this unit is to familiarize the student with the use and operation of some of the commonly used audio-visual equipment. He should be able to handle and operate them with confidence in classroom situations. He should also be able to spot out some simple defects in these.
2. Basic contents of the unit :
 - (a) Study of the construction and operation of the following items of equipment :
 1. 16mm film projectors.
 2. 35mm filmstrip/slide projectors.
 3. Epidiascopes.
 4. Overhead projectors.
 5. Tape recorders.
 6. 16mm cine cameras.

Unit VII. Source of audio-visual materials, with emphasis on use and development of indigenous products.

1. Generally a teacher finds it difficult to locate the proper teaching materials, commercially produced for use in different subjects. The aim of this unit is to familiarize him with these. All regions in India have their specific local materials that lend themselves easily for the preparation of low-cost materials. The teachers are to be made conscious of these materials all along this course. Emphasis is to be placed on a variety of local materials and the preparation of inexpensive aids with the help of these materials.
2. **Basic contents of the unit :**
 - (a) Local, regional and all India producers of audio-visual aids. Some of the salient audio-visual materials
 - (b) Availability of free materials from different governmental departments, agencies and embassies.
 - (c) Using local and regional materials for preparing low-cost aids.

Unit VIII. Miscellaneous instructional materials.

1. The objective of this unit is to make the teacher conscious of the use and importance of integrating dramatics into the curriculum and using it as a medium of instruction. Field trips also serve the same purpose.
The use of audio aids, especially the tape recorder, is to be emphasized in the teaching of different subjects.
2. **Basic contents of the unit :**
 - (a) Various forms of dramatics and their use in different subject.
 - (b) Using and organizing fieldtrips and educational excursions for enriching different subjects.
 - (c) Using audio aids-tape recorders, recordings, and transcriptions, selecting and using audio learning experiences and evaluating them.

Unit IX. Laboratory work.

All along the course intensive laboratory practices in preparation and utilization of audio-visual materials are to be emphasized.

Special emphasis is to be given to the following :

Preparation of charts, flash cards and other graphic aids ; flannelgraph materials; study kits and science kits, relief models,

working models and collapsible dioramas ; photographic and handmade filmstrips.

PAPER ON ADVANCED PRODUCTION TECHNIQUES FOR AUDIO-VISUAL MATERIAL

Objectives :

1. Developing advanced techniques of production of audio-visual materials.
2. Preparing teachers mentally for developing their own aids ; equipping them with basic techniques that can help them develop their own teaching aids specifically suited to the different topics and subjects.
3. Providing practice and proficiency in using simple sketching techniques to prepare own sketches, visuals and displays.
4. Developing ability to analyze various types of audio-visual aids that can be prepared and improvised in connection with various topics of the different subjects in the curriculum. He should be able to visualize and make rough visuals or thumbnail-sketches of the graphic aids of three-dimensional materials to be finalized by the artist and modeller working under him.
5. Developing skill and proficiency in photography and filmstrip making.
6. Developing specific skills such as :
 - a. Skill in a variety of screen processes.
 - b. Skill in developing simple and inexpensive graphic aids.
 - c. Skill in preparing different types of models and three-dimensional materials.
 - d. Skill and high proficiency in still photography.
 - e. Skill and high proficiency in making filmstrips and other similar projected aids.
7. Intensive laboratory and workshop practicals.

CONTENTS OF THE PAPER

Unit I. Preparation of graphic aids.

1. After the basic groundwork has been covered in the preparatory course, this unit aims at further specialization in the production technique involved in graphics.
The students should be able to plan, visualize and make a variety of charts, graphs, maps and other visual aids. By having further practice in some of the sketching techniques for the non-artists, they should be able to make their own sketches and execute simple aids involving artwork.

They should develop further acquaintance with all varieties of graphic aids and should be able to select, prepare and utilize the proper aids for different curricular topics.

2. Basic contents of this unit :

- (a) Defining graphics, categories of graphic aids.
- (b) Fundamentals of art and display in greater detail.
- (c) Varieties of charts and their preparation.
- (d) Fundamentals of posters ; preparation and utilization.
- (e) Different types of graphs and their use.
- (f) Fundamentals of map-work and maps ; preparation of simple maps for social studies in the elementary and secondary schools.
- (g) Cartoons and comic strips.
- (h) Preparation of different types of flannelgraphs for different subjects ; special use of flannel-graphs in elementary education.
- (i) Pictorial albums, tear-sheet files, manuals and information kits.

Unit II Screen Process

1. For effective communication of ideas, there arise many situations when simple diagrams, posters and sketches have to be reproduced in small numbers to be distributed to all the members of a class. This can be conveniently done through the screen process. The objective of this unit is to develop reasonable proficiency in various direct and photographic techniques involved in the screen process. They should be able to make simple screens and use indigenous colours and other materials.
2. **Basic contents of the unit :**
 - (a) Different types of direct and photographic screen processes; an analysis of procedures and techniques involved in these.
 - (b) Preparation of posters, illustrations and diagrams for teaching through the screen process.
 - (c) Preparation of pictorial covers and title pages for folders and manuals.

Unit III. Preparation of three-dimensional materials.

1. The main objective of this unit is to emphasize the use and preparation of models and three-dimensional aids from inexpensive and easily available materials. The teachers should be

able to improvise their own three-dimensional materials for different topics.

They should also be able to make accurate and artistically presentable models and three-dimensional materials.

2. Basic contents of the unit :

- (a) Different types of models.
- (b) An analysis of different modelling techniques using papier mache, clay, plaster of Paris, wires and metal sheets etc.
- (c) Preparation of some pieces of improvised equipment for teaching science.
- (d) Working models and cross sectional models and mock-ups.
- (e) Relief models and globes for the teaching of social studies.
- (f) Different types of dioramas, scroll boxes and peep boxes.
- (g) Preparation of mobiles for different topics.
- (h) Puppets and puppet plays for schools and social education.
- (i) Science kits and study kits for different subjects.

Unit IV. Basic details of photography :

1. The students should undergo a thorough practice in all the practical details connected with photography. They should be able to take photographs under different situations. They should be able to develop, print and utilize them effectively.

This is an advanced intensive unit that ensures high proficiency of knowledge and skills connected with the principles and processes of photography in connection with the preparation of instructional materials.

2. Basic contents of the unit :

- (a) History of photography.
- (b) Basic principles of optics ; lenses and their uses ; lens defects.
- (c) Basic principles of photography.
- (d) Study and use of different types of cameras.
- (e) Photographic chemicals ; theory of intensification and reduction ; use and preservation of chemicals.
- (f) Darkroom and its accessories :—
 1. Setting up darkroom for both black and white & Colour processing.
 2. Study and use of different equipment in the darkroom.
- (g) Details about different techniques and processes of copying, printing and enlarging.
- (h) Colour processing.

Unit V. Making filmstrips. :

1. The audio-visual specialist should be able to develop a script and produce a filmstrip on certain topics related to the curriculum.
He should have a high proficiency in the making of hand-made filmstrips.
2. Basic contents of the unit :
 - (a) Writing and evaluating scripts for filmstrips.
 - (b) Preparing photographic filmstrips with titles and without titles ; single and double-frame filmstrips.
 - (c) Advanced techniques in the production and preparation of handmade filmstrips.

Unit VI. Other photographic aids :

1. By the end of this exhaustive and intensive laboratory course in photography the audio-visual specialist should be able to make all varieties of photographic aids excluding motion pictures. He should also develop some simple projected aids suited to the curriculum in his surroundings.
2. Basic contents of the unit :
 - (a) Preparation of slides, slide books and big translites.
 - (b) Transparencies for overhead projector.
 - (c) Use of stereographic camera and preparation of stereographic slides.

Unit VII. Some aspects of motion picture production :

1. An audio-visual specialist should be conversant with the basic techniques involved in the production and use of motion pictures and instructional films.
He should be able to supervise the production of simple school movies of different activities and functions.
He should have a knowledge of the principles of film discrimination and evaluation.
2. Basic contents of the unit :
 - (a) Historical development of motion pictures.
 - (b) Elementary physical description of sound motion picture—photographics and sound electronics.
 - (c) Basic principles and steps involved in making simple movies.
 - (d) Changing speed photography, photomicrography, animation.
 - (e) Classification of 16mm sound motion pictures.
 - (f) Fundamentals of film discrimination and evaluation.

CONCLUSION

The training colleges should make greater use of Audio Visual materials in their pre-service training course at all levels. This will have immediate and long-range positive influence on teaching procedures in schools. With greater provision of concrete experiences and instructional materials the general level of instruction will rise. In order to reduce the burden of in-service training, all teachers should undergo a basic minimum of laboratory experiences in the preparation and utilization of Audio-Visual aids, along with a clearly conceived theoretical knowledge of the materials and techniques.

It will be ideal if a short-term course on preparation and utilization of Audio-Visual materials be made compulsory for B. Ed. students. The trainees in the undergraduate training courses can be given a modified form of training containing the basic essential from the preparatory course, suited to their level and needs. In all such cases, this course can be condensed from the contents of the preparatory course. If this is not possible, then small units can be integrated with the papers on Principles of Education, Educational Psychology, Methods of Teaching, etc.

Simultaneously, it is necessary to develop at least both the courses mentioned above, at the National Institute of Education and at a few other training colleges all over India. This will train leaders in the field of Audio-Visual instruction.

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CHAPTER IX

EXAMINATIONS AND EDUCATIONAL MEASUREMENT

(K. Vedanta Chari)

["EVALUATION" implies a much wider concept and covers a broader field than ever claimed by examinations or even educational measurement. Shri K. Vedantachari of Osmania University, treats in this article an important aspect of all education, which, in fact, has dominated all teaching and learning in our country. The topic is hardly included as a separate paper at B. Ed. level anywhere, though it occupies such a significant position in existent school and class-room situations. Hence, it may be essential to include this as a "must" in all teacher-education programme, so that the future teacher knows the exact role it does and should play in education, the pitfalls, the defects, the importance and possible improvements. This should not end in mere theoretical knowledge, but be used by the teacher-trainees in evaluation of the efficacy of the teaching they attempt and its actual outcomes in terms of pupil-learning.]

INTRODUCTION

The courses offered at present under the above caption in the Training of Secondary School Teachers, are either dealt with as incidental to the details of the general papers and Methods in the teaching of various school subjects, or are provided as a separate optional under paper IV-part B, called by different names such as Educational Measurement and Evaluation, Tests and Measurements, Theory of Educational Measurement and so on. Further, wherever this topic occurs under Methods papers or general papers such as Principles of Education, Educational Psychology or School Organisation or Administration, the emphasis appears to be on Examinations—the Old Essay Type and the New Objective Type and their comparison etc. Under the optional courses pertaining to this subject, the emphasis usually shifts towards Educational Statistics dealing with interpretation of examination scores, Measures of Central Tendency, Variability and Correspondence together with measures of reliability and validity of test results etc. In addition to the achievement tests, enough scope is also provided under this optional for psycho-

logical tests dealing with Intelligence, Attitudes, Aptitudes, Standardisation of Tests, Assessment of Personality and Character and Remedial measures and so on. Incidentally, it is also to be noted that some what specific attention towards Evaluation as such is being devoted roughly since 1959 as a result of a general recommendation and appeal circulated to all Departments of Education and Universities on behalf of the then All India Council for Secondary Education in this regard. This work is now being carried on, as is well known to all concerned, by the Directorate of Extension Programmes for Secondary Education through its Evaluation Unit.

Since our present concern is to discuss this issue under the Study of Theoretical Subjects, the following phases of the problem deserve consideration :—

(a) To what extent could this topic be incorporated as incidental to different Methods courses or General subjects ? Would such a procedure involve undue repetition and if so, how could it be avoided ?

(b) What would be the scope to be covered under the caption of Examinations as such ? Would it be Historical and Theoretical or, would it have to be practical and applicational ?

(c) What would be the scope of Educational Measurements ? To what extent could statistical procedures be included under them ? Also to what extent could psychological measurements be brought in so as to cater to the requirements of Educational Guidance and Counselling ?

(d) Is there any need or justification to have a separate course on "Evaluation in Teacher Education", apart from this course on "Examinations and Educational Measurements", as envisaged in the proposed contents of the present symposium ? Or, could both the aspects of Measurement and Evaluation be blended together, as has been done by some Universities ?

It is confessed that the above categorisation of problems is not free from overlapping. It is tentatively adopted as a convenience for our discussion although each of these issues may not be taken up incomplete isolation and settled as such.

ITS PLACE IN THE CURRICULUM

A casual survey of the syllabi under the different subjects of the B. Ed. courses, in general, would reveal the fact that almost all through, the topics of Testing, Examinations, Types of written, oral, new and old tests etc., do find a place in all the Method subjects. Similarly, courses under Educational Psychology also usually include achievement tests,

types of tests and educational statistics with necessary implications bearing on Examinations and Measurements in general. Repetition seems obvious, although one could infer that the respective lecturers would deal with the emphases relating to their particular subjects only, at least so far as Method courses are concerned. It is, therefore, perhaps, desirable to arrive at a common understanding along some lines as follows :—

(i) The concept of Measurement and Evaluation, with reference to the current types of examinations might be dealt with in a general way under a general paper, preferably Principles of Education and School Organisation.

(ii) The statistical aspects of dealing with the results obtained from any type of tests could be dealt with under Educational Psychology in so far as the common concepts of Central Tendency, Variability and Correspondence are concerned, without going into too many details regarding the significances of these statistics or differences among them. It is to be rightly assumed that even without claiming to be a specialist in Statistics, every teacher is required now a days to be fairly conversant with these concepts because they have become so much commonplace in educational literature.

(iii) Concepts concerning the psychological aspects of educational measurements, dealing with Intelligence, Attitudes and Interests etc., could also be taken up incidental to mental measurements, apart from achievement tests, under the general paper on Educational Psychology itself. Further, this section of the course might, perhaps, be regarded as important mostly from the informational aspect alone rather than from an experimental aspect.

(iv) So far as the actual construction of tests or evaluation tools is concerned, the objectives to be borne in mind behind them might be included under the already common topics of aims or objectives under different method subjects. This should, of course, mean that instead of being satisfied with some of the conservative terms relating to objectives such as the Utilitarian, the Cultural and the Disciplinary aims, we may have to go into an analysis of these broader aims in terms of the specific behavioural objectives relevant to each specific subject.

(v) The actual practice to be given to the trainees in the preparation of test items under selected objectives, may be treated, not as a part of the theoretical discussion, but as a class-room assignment to be pursued throughout the year as sessional work under the direct supervision of the lecturers concerned. This type of work should form the subject matter of discussions, tutorials and seminars.

(vi) The present practice of asking a question on test items to be prepared in the final examination hall, has to be discontinued because it is rather absurd to expect of a candidate to construct really well conceived items under the pressure of examination. The inclusion of such questions in the Method papers is now amounting to the very undesirable practice of cramming a few test items also, under different types, for reproducing them in the examination.

(vii) The above suggestion is relevant even for the preparation of mental measurement items.

(Note :— In the above argument, it is assumed that educational or mental measurement is to be regarded more or less as a common subject with which all teachers are to be concerned irrespective of their areas of specialisation in school subjects.)

CONTENT OF THE COURSE ON EXAMINATIONS

The kind of provision suggested in the foregoing paragraphs for dealing with examinations and tests under other papers, may not be regarded as adequate for purposes of specialisation. Therefore, it seems desirable to discuss this topic under an optional also. But the treatment should be biased towards the applicational and investigational approach rather than merely the theoretical and academic or historical approach. Particular stress may have to be laid on the following aspects :—

(a) Scrutiny of the defects of the existing, essay type examinations :—There is a good deal of literature on this subject. But, perhaps, it is desirable to stimulate a research approach among the trainees on issues such as :—

- (i) Lack of objectivity in the marking of scripts ;
- (ii) Lack of definiteness in the wording of the questions ;
- (iii) Disparity of the standard, scope and difficulty of questions supposed to be carrying equal marks ;
- (iv) Unreliability of predictions based on the assessment in these exams. This study will naturally include other studies relating to the agreement or otherwise between the internal and external assessments ;
- (v) Chance factor inherent in the declaration of results ;
- (vi) Lack of comprehensiveness of the scope covered by an examination paper and so on.

(Note :— It is possible to treat each of these problems as a project, big or small, and induce the trainees to collect their own data, rather than making them believe what has been said by others.)

(b) **Suggestions for Improvement of Exams :—**These suggestions could be discussed under two main heads. Firstly, the precautions that could be adopted to make the assessment as objective as possible, keeping the present practice of essay type exams., intact. Secondly, the nature of modifications to be brought in by way of reforming the questions and the mode of examining itself.

Under the first category, the following aspects might be discussed and even explored experimentally :—

(i) **Introduction of the symbolic system of marking instead of the percentage score system :—**The Inter University Board has already made this suggestion long ago and some universities are going ahead with it, although the procedure is still far from satisfactory because instead of thinking in terms of the qualitative assessment of performance, most of them are concerned with only equating the orthodox percentage marks with a certain set of symbols.

(ii) **Introduction of class records to supplement the final examination assessment :—**It is a pity that there seems to be a good deal of scepticism about the genuineness of these records. The integrity of the teachers is at stake.

(iii) **Entrusting the paper setting and the valuation work to external examiners alone :—**This is again a retrograde step telling upon the reliability of the internal people.

(iv) **Double valuation of scripts :—**Perhaps, there is much to speak about this procedure from the point of the nature of understanding among the co-examiners before undertaking the valuation, independently.

Under the second category, the possibilities of bringing in the following reforms need to be discussed :—

(i) **Introduction of objective versus the subjective type of questions :—**This is now rather a much criticised reform. But perhaps, the defect lies here too, as in the case of the essay type questions, in the care being taken to frame these items. The different types of these objective test items require discussion with the help of specific illustrations, in the form of a seminar or workshop.

(ii) **Arriving at a happy combination between the objective, the short answer type and the essay type questions :—**This combination would have to be considered from the point of making good the deficiencies of any one type of questions alone.

(iii) **Introduction of the Open Book Type of questions :—**This type has already been introduced in certain accountancy and, perhaps, law examinations. There is much scope of trying them at the academic level

in schools and colleges. The main issue at stake is how to avoid the possibility of direct copying of answers from books.

(iv) The weightage to be given to the objective versus the essay type parts of the question papers :—This point requires consideration in the light of certain complaints regarding the undue increase in pass percentages owing to the combination of marks scored by candidates in these two parts.

EDUCATIONAL MEASUREMENT

This issue is comparatively less controversial in the matter of its scope. Apart from the general considerations regarding the function of educational measurements to be discussed under any general or method paper, this subject has to be introduced as an optional along with Examinations, discussed above, both at the B. Ed., as well as the M. Ed., level.

To main and complementary parts of this subject seem to be inevitable. Firstly, the construction of Tests and secondly, the measurement theory dealing with the sampling theory, the reliability and the validity problems and the standardisation of tests. Teachers preparing for this task have to be given a solid grounding in statistics because without it, their job would be only half complete. Further, they may also be required to undertake the preparation of mental measurements, especially tests of Intelligence, Personality and Character traits and Interests etc., so that they could tackle any class-room problems pertaining to behavioural aspects or achievement trends with greater confidence.

EVALUATION AS A SEPARATE SUBJECT

If considered from the point of the methodology aspects of teacher education, there is justification in treating it as a separate but a general subject. In such a case, the contents would include discussion on the knowledge, the comprehension, the application, the analysis, the synthesis, the evaluation, and judgment aspects of teaching with the required emphasis on the cognitive and the constive approaches in different school subjects. Besides, the different possible means of evaluating the progress of students, the working conditions of educational institutions and their programmes on the psychological and the sociological levels could also be taken up in general.

But if considered from the point of assessing either educational achievements of pupils, or the causative aspects of their behaviour, there does not seem to be much of a justification in having this as a separate subject because it will amount to unnecessary repetition and overlapping. All aspects of test construction, standardisation and other statistical

considerations would better be covered under Tests and Measurements in Education alone. It, therefore, seems desirable to treat Evaluation in Teacher Education as a common subject, coupled with Principles of Education and also with Methodology courses of different subjects, where as the subject of Examinations and Educational Measurements could be regarded as an optional, meant for teachers with an aptitude for statistical calculations.

The intention of this paper has not been to draw up a syllabus in the subject concerned because there can be no final word about it. Instead, some suggestions have been offered from the point of the scope of the course to be dealt with. Incidentally, therefore, it might be worth while to have in view the kind of investigations or experiments that are currently undertaken by teachers and students of Education at different levels.

Broadly speaking, evidence could be easily traced in the existing literature in the country, in the journals or in the form of dissertations, these reports on the following issues :—

(a) Construction and standardisation of tests-achievement tests as well as intelligence tests :—There appears to be a comparatively greater effort in the fields of Mathematics and Sciences, so far as achievement tests are concerned.

(b) Construction and standardisation of Diagnostic tests :—Here again evidence is found mostly in Arithmetic at the lower secondary level.

(c) Analysis of the types of errors committed by students :—This attempt has been made in Mathematics, Sciences, English and other languages. Usually, the analysis is carried out with a view to suggest certain remedial measures in teaching.

(d) Studies of the predictive value of achievement tests :—Mostly the investigations under this head have aimed at finding out the correlations between different tests and examinations such as internal versus external examinations, objective versus the essay type tests and follow up of the progress of students having passed equivalent examinations such as the M.P. and the P.U.C., and so on. The limitations under which these investigations are carried out, specially with regard to the samples selected, have, of course, to be borne in mind while drawing any conclusions.

(e) Causes of failures of candidates in the examinations :—Different causes such as the phenomenal increase in the numbers of

candidates, the effects of the media of instruction, the administrative set up of schools and colleges and the standards of the books prescribed etc., have been explored but without arriving at very conclusive results.

(f) Although rather rare, evidence is also reported on the relation between interests and achievements of students at different levels. Here, the question of assessment of interests on an objective scale, usually becomes problematic. Studies regarding relations between the I.Q. levels and achievements are comparatively more objective where standardised tests of intelligence are available.

(g) Sex differences in the achievements are also usually explored either as side issues to the above types of problems or as even independent studies.

While the above classification is not claimed to be exhaustive, it might suggest to us certain specific areas or problems that deserve mention and inclusion under the scope of this subject. The main aim to be borne in mind would be to stimulate the trainees into an experimental outlook in addition to imparting the theoretical information alone.

BIBLIOGRAPHY

In suggesting a bibliography for this paper, it was considered desirable to classify it under the following heads, as a matter of convenience :—

- (A) Examinations, their defects and improvements from the point of preparing objective types of tests;
- (B) Measurement and Evaluation;
- (C) Statistics in Education and Psychology;

A few references under each head are submitted below, leaving the lists open for improvements :—

- (A) *Examinations, their defects and improvements* :—

- (1) Ballard, P. B; *The New Examiner.*
- (2) Hartog, P. J; *Examinations and their Relation to Culture and Efficiency.*
- (3) Hartog, S. P. & Rhodes, E. C; *An Examination of Examinations.*
- (4) Menzel, E. W; *Suggestions for the Use of New Type Tests in India.*
- (5) Marry Lee, J. A; *Guide to Measurement in Secondary Schools.*

(6) Valentine, C. W; The Reliability of Examinations.

(7) Bell, C. R. V; Examination Time.

(B) *Measurement and Evaluation :—*

(1) Adam, G. S, & Tongerson, T. L; Measurement and Evaluation for the Secondary School Teachers.

(2) Baron, Dents & Bernard; Evaluation Techniques for Classroom Teachers.

(3) Bloom, B. S. & others; Taxonomy of Educational Objectives.

(4) Donhue, W. C. & Others; The Measurement of Students' Adjustment and Achievements.

(5) Dressel, Paul, L.; & Mayhew, B; General Education : Exploration in Evaluation.

(6) Fleek, Henrietta; How to Evaluate Students.

(7) Gernerich, J; Specimen Objective Test Items.

(8) Greene, H. A. & Others; Measurement and Evaluation in Secondary Schools.

(9) Henry, N. B; Measurement of Understanding; 45th Year Book, N.S.S.E.

(10) Jordan, A. M; Measurement in Education.

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(12) Micheels, William, J. S., Karnes, M. Ray; Measuring Educational Achievement.

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(21) Thomas, R. Murray; Judging Students' Progress.

(22) Wrightstone, J. & Others; Evaluation in Modern Education.

(C) *Statistics in Education and Psychology :—*

(1) Blommers & Lindquist; Elementary Statistical Methods in Psychology and Education.

(2) Connor, L. R; Statistics in Theory and Practice.

(3) Cornell, F. J; The Essentials of Educational Statistics.

- (4) Davis, F. B; Item Analysis Data, their Computation, Interpretation and Use in Test Construction.
- (5) Edwards, A. L; Statistical Methods for Behavioural Sciences.
- (6) Fisher, R. A; Statistical Methods for Research Workers.
- (7) Flanagan, J.C; Factorial Analysis in the Study of Personality.
- (8) Guilford, J. P; Psychometric Methods.
- (9) Garrett, H. E; Statistics in Psychology and Education.
- (10) Lindquist, E.F; Statistical Analysis in Educational Research.
- (11) Long, J. A. & Sandiford, P; The Validation of Test Items
- (12) Tate, H. W; Statistics in Education.
- (13) Thutstone, L. L; The Reliability and Validity of Tests.
- (14) Wart, James & Others; Statistical Methods in Educational & Psychological Research.

CHAPTER X

EDUCATIONAL AND VOCATIONAL GUIDANCE

(K. P. Chaudhary)

[THERE are Bureaus for Educational and Vocational Guidance in most States. Counsellors and Career-masters are more and more in demand. With rapid industrialisation, the problem of "fitting the square peg into the square hole" assumes a complexity and significance not dreamt of in the slow, agrarian society to which we have been accustomed. Since we do not have sufficient technical personnel solely devoted to guidance services, we have to think of other ways and means to meet the day's needs. Sri K. P. Chaudhary, of David Hare Training College, Calcutta, outlines a plausible scheme by which every secondary school teacher could be trained to assist the total Guidance Programme of the school, with provision for advanced training for a few who would like to specialise. The changing emphasis in educational objectives, curriculum and methods, necessitates guidance-oriented approach to teacher-education also, and the sooner the training programme is geared to the new requirements the better will the results be at the school-level.]

PLACE IN THE TOTAL PROGRAMME

The place of Educational and Vocational Guidance as a theoretical subject for study in the professional preparation of teachers for Secondary Schools may be considered from two angles—as a compulsory subject of study for all and as an optional subject or study for those who desire to specialise in the field with a view to undertaking some special responsibility in running the school guidance service.

In either case, it is necessary to start with clarification of the relation between the educational programme of the School in general and Educational and Vocational Guidance and tabulation of activities to be undertaken for effective functioning of the school guidance service.

It needs to be emphasised that contrary to what many people think, educational and Vocational guidance activities in our schools should be more educational than vocational in nature. Even taking the term in its narrowest sense i.e., helping pupils to choose the course, training or

vocation best suited to him at the end of the junior, high or higher secondary school stage, the task cannot be effectively performed without the general improvement of the educational programme of the school and without the general participation of its staff members : Take for example, the problem of choosing the "right" course at the end of the junior school stage. It is the common experience of guidance workers that for the majority of the pupils none of the diversified courses in Multilateral Schools can be considered suitable. They simply seem to be unsuitable to Higher Secondary Education. To advise them to join some trade course seems to be unrealistic, as this would usually involve going down to a lower social order than the one in which they are functioning and is likely to be resisted tooth and nail. Again the unsuitability of many of these pupils are not due to the lack of innate abilities, but to backwardness which probably has begun to accumulate since their admission to school and which has acquired such proportions, that by the end of the junior secondary school course, they have become incapable of receiving further education. It is defective teaching and promotion policy (extremely lenient till the end of the junior school stage) which are principally responsible for rendering them unsuitable to higher secondary education. So, a guidance worker would feel helpless, unless the general methods of teaching in schools are improved, evaluation of scholastic attainments and promotion policies made more scientific and arrangements made for offering special help to the backward pupils. To cite a specific case, what guidance, I wondered, could be offered to a boy promoted to class IX, whose standardised Intelligence Score was 115, while his Verbal, Numerical and Spatial abilities scores were 100, 120 and 125, respectively, but who has failed miserably in mathematics in all the class examinations in class VIII (he scored just pass marks in the languages) ?

Looking from the other end, it may be pointed out, that effective guidance, should in its turn improve the educational standards in a school. If the development of educational and vocational motives in consonance with the pupils abilities and interests is the principal objective of Educational and Vocational Guidance in Schools and if the key note to learning is motivation, successful educational and vocational guidance should contribute to effective education. This becomes clearer when it is found that many of the activities in the two fields are overlapping.

In short, we strongly feel that Educational and Vocational Guidance activities should be integrated to the general programme of education in schools. It should be noted that it is no job of a single guidance specialist ; many of the guidance activities can be and should be

shared by the staff of the schools in general. As such, every teacher in course of his professional preparation should receive training for such guidance activities, which he shall have to undertake. These activities are naturally not unrelated to his job as a teacher, but are integrated to it. Training in them, should have been included in our teacher-education programme, if it were of an ideal nature.

Without indulging in generalities anymore, let us try to tabulate below, the specific guidance activities for which every teacher should receive training.

1. *Maintenance of Cumulative Record Card :*

We are emphasising this in India, as a guidance activity, only because our schools have failed to give it the place it deserves in their programme. In fact, keeping of comprehensive and cumulative records of pupil-development in scientific manner is as much necessary for education as for guidance. Again, no single person, however specialised he may be in the job, can keep the C.R.C. for all the pupils in a school. He can not know the pupils well enough and cannot be connected with all the developmental activities carried on in schools in regard to all the pupils. As such, it is a job for every teacher to learn.

2. *Latest techniques for evaluation and interpretation of scores :*

To make the C.R.C. dependable, it is necessary to utilise the latest techniques of evaluation. For example for evaluating personality-traits, interests etc, the teachers should be trained to rate in terms of objective scales. Again, for evaluation of attainments, the teachers should know how to construct adhoc objective tests and short-answer questions and how to score them. It is also necessary for them to be trained in the method for awarding marks to answers to essay-type questions in more objective manner using a much shorter scale. They should also learn about rank determination and Standardisation of scores as techniques for interpreting them.

3. *Running Parent-Teacher Association :*

This is another activity equally important to guidance and general education. Again, it is a job of the staff as a whole. The theory and practice are to be specially learnt as it is not being successfully run in our schools.

4. *Preparing non-projected visual materials and running exhibition :*

This is also an activity which should be more utilised both for educational and guidance purposes and yet adequate emphasis is not given to it in our teacher-education programme.

5. *Making Case-studies, taking revision lessons, helping backward pupils through self-help work materials :*

The relationship between scholastic backwardness and undesirable behaviour among pupils and effective guidance has already been pointed out. These two phenomena are so wide spread in our schools, that tackling them cannot be altogether left to specialised institutions (Remedial education Centres and Child Guidance Clinics) as it is done in western countries. Something has to be done in the general school set up and in course of the general school activities. As such, it is felt that every teacher must learn the technique of case study to help to collect information which may be utilised by specialists. In at least one subject he should be acquainted with the methods and techniques for helping backward pupils as indicated at the beginning of this section.

It is felt that the six point training programme tabulated above can be integrated to our existing teacher-education programme. For example, points 1, 4 and 5 may be incorporated in the paper on Principles and Practice in Education, point 2 in Educational Psychology and point 3 and 6 in paper on Methods of Teaching. Some institutions have already incorporated some of the above in their teacher-education programme. But, even for them, what is probably needed is to give more practical bias to the programme. So that it may be adequate preparation for the jobs tabulated above.

Besides, Guidance may constitute an optional subject for study in the B. Ed. level. Quite a few Universities have already made provision for this. But a perusal of the content of education of some of the Universities in the subject, makes one wonder about the specific objective for this course, apart from general orientation in guidance; which I believe should be given to all teacher-trainees and not to a few.

The objective for providing the optional course, appears to me to offer scope for such specialisation with which the teacher may be able to undertake some special responsibilities in the field of guidance. It has been accepted that every Secondary school needs the services of at least a Career-master. They may be responsible for developing following guidance activities in schools—

- (i) Organising and Maintenance of Cumulative Record Cards.
- (ii) Dissemination of information on courses and careers, through guidance Bulletin Board, Career-talk, Guidance Exhibition, Guidance Excursion, Career Conference and Occupational Information Library.
- (iii) Organising and Running hobby clubs for development of interest and abilities.

- (iv) Administration of Standardised tests (Ability & Attainment) and interpretation of their scores.

Three to four weeks intensive training for the Career-masters job has been suggested. The time which may be devoted to the study of an optional subject in the B.Ed. course, would roughly be equivalent to this. It would be a great relief to the State Bureaus of Educational and Vocational Guidance if the Teachers Training Colleges co-operate with it in training at least one Careermaster for every Secondary School. It has only to be seen that the State as a whole provides more or less similar experience through the course and follows more or less similar methods of evaluation. Those trainees successfully completing the course, may be offered the Careermasters' Certificate along with the Diploma.

On the basis of the discussion above and particularly on the basis of the specific objectives tabulated for the two types of courses two syllabuses are suggested below, one for the "Compulsory" course and the other for the "Optional" one.

The study of syllabuses may lead to the criticism, that we have been too ambitious in our suggestion of practical work. It is felt that the practical work suggested, along with other practical work for the B. Ed. course, could be successfully undertaken, if we take to the practice of sending the trainees to schools for two days in every week for six months.

Teacher-educators are unanimous on the question of increasing the emphasis on practical work and in weaving the theoretical courses round it. The practical work suggested, are not also novel, in nature. But still if there are practical work, which have not yet been incorporated into regular school activities and which would take time to develop (e. g. running hobby clubs) they may be dropped from the programme for the time being.

Educational and Vocational Guidance as a Compulsory subject for study in the B. Ed. level, integrated to other subjects for study.

A SYLLABUS FOR CONSIDERATION

Integrated to the paper on Principles and Practice in Education Theoretical

1. The concept of Educational and Vocational Guidance and its place in Secondary Schools in India; the role of the teacher in it.
2. The concept of Cumulative Record Card and the purpose for maintaining it in Secondary Schools.
3. How the different items in the C. R. C. may be filled in (in reference to the Card which may be in use in the State).

4. The purpose for running parent-teacher association and the different ways it may be done. Special problems in organisation and how should they be tackled.
5. The place of non-projected Visual materials in teaching in general and guidance in particular.
6. Different media for preparing Visual materials and guiding principles for preparing them.
7. The purpose of organising Exhibitions and guiding principles for the work.

PRACTICAL WORK

1. To fill in the C.R.C. of at least 5 pupils at the end of the year.
2. To organise at least one meeting of the Parent-Teacher Association of a class.
3. Preparing one visual material, strictly according to principles discussed and indicate how it may be utilised.

Integrated to the paper on Educational Psychology

THEORETICAL

1. The place of the following in internal evaluation
 - (a) Objective rating scales
 - (b) Essay-type questions
 - (c) Ad-hoc Objective and short-answer tests.
2. Principles for constructing an objective rating scale.
3. Principles for constructing ad-hoc objective and short-answer tests and scoring them.
4. How to make scores of Essay-type tests more objective.
5. The concepts of Standard Score and Rank Score—their utility and the techniques for calculating them.

PRACTICAL

1. Constructing an adhoc objective and short-answer test in one of the School subjects in which specialising.
2. Constructing Objective rating scales for scoring at least three essay-type questions in one of the subjects in which specialising.
3. Rating the personality traits (as in the C. R. C.) of at least 3 pupils of any class.
4. Calculating Standard Scores for different subjects for any class in any examination.
5. Calculating Rank scores for any class in any examination in a subject.

INTEGRATED TO ONE OF THE OPTED PAPERS IN METHODS OF TEACHING

Theoretical

1. Role of the hobby club in the teaching of the subject and in Educational and Vocational Guidance.
2. How to run hobby club in the Broad Field, (Humanities, Science etc.) to which the subject belongs.
3. Problems of organising such hobby clubs and how to solve them.
4. The concept of "Case-Study" its place in the teaching of the subject and how it is to be filled in.
5. Purpose for revision lesson and lesson notes for such lessons.
6. The concepts of Diagnostic Tests and self study remedial readers-how to prepare them in the subject.

Practical :

1. Attending three sessions of a hobby club and running three sessions for it.
2. Filling in one Case study form for a pupil in any Secondary School Class who is backward in the subject.
3. Giving at least three revision lessons in the subject.
4. The class as a whole should prepare one Diagnostic Test and Self-help remedial reader, with specific assignments for each student.

Syllabus for Educational & Vocational Guidance as an optional subject for study in the B. Ed. level (Leading to the Career-master's Certificate.)

N. B. :- It is assumed that the trainees would also be undertaking the compulsory course as indicated before.

Theory :-

1. Principles and Practice of Guidance as compared and contrasted to those followed in Secondary Schools in U.K. and U.S.A.
2. Place of Standardised Tests in Guidance. Principles for administering scoring and interpreting standardised group paper-pencil tests.
3. Specific Guidance activities to be carried on in different School classes.
4. The Occupational families and their relation to different types of courses and training facilities available.
5. Sources of information on courses and careers and development of Occupational Information Library.

6. Different methods for disseminating information.
7. Group Guidance Activities, Career-talks, Career Excursions, Career Conferences.
8. Cumulative Record Cards and the School Organisation necessary for maintaining it.
9. Hobby clubs and the principles for their organisation.

Practical work :

1. Collection of information about any course or training facility and the occupations leading to it.
2. Organise the maintainance of C. R. C. for any one class in a school.
3. Conduct one Career Excursion.
4. Display materials in the Guidance Bulletin Board at least once.
5. Give at least three Career-Talks (over and above what has been given as a part of the compulsory course).
6. Organise running of hobby clubs for any class.

CHAPTER XI HEALTH & PHYSICAL EDUCATION

(K. D. Bakshi)

[*"A sound mind in a sound body" was an accepted maxim by both Greek and Indian Philosophers of ancient days. It is only the compartmentalized later civilizations which began to think of body and mind as separate and imagined education could proceed, without taking the "physical" into account. It is time we returned to the sounder views, specially when we are always talking of the "whole" child and "total" personality. Shri K.D. Bakshi, of Central Institute of Education, critically examines below the present sad position occupied by Health and Physical education. He analyses the syllabus of 33 Indian Universities and presents a new syllabus which should meet the needs of the teachers who have to take care of our future citizens-body, mind and soul. The knowledge and skills expected from them are set out in great detail, and with explicitness as to the "why" and "How" of the scheme suggested.*]

Health is one of the cardinal objectives of education, therefore, Physical and Health Education should constitute an important part of the programme of teacher training in this country.

TWO FUNDAMENTAL QUESTIONS

What is the present position in regard to the courses of studies and practices in physical and health education in the teacher training institutions of different universities in India? What can be done for improvement in this connection, so that we may be able to meet the needs of the changing times? These two questions loom large before our mind's eye, when we start visualising reorganisation and reform of our secondary schools, which depend on the provision of a dynamic programme of teacher education.

MODERN CONCEPTS

But before we take up these two questions, it is essential that we should make ourselves fully conversant with the modern concepts of health, education, and physical education. Misconceptions do exist.

Because of wrong ideas, wrong approaches are made, unsatisfactory results are achieved, and there is a hesitation in the mind of educational authorities to give Physical and Health education its legitimate place in the programme of teacher education.

Health Education is not only teaching of the human physiology or hygiene. It is not only medical inspection or immunization against communicable diseases or health instructions. It is experiences which help in the development of desirable habits, wholesome attitudes and the acquisition of adequate knowledge relating to health.

So too, Physical education is not mere physical training and physical culture, games and sports: gymnastics and callisthenics, N. C. C. and A. C. C., scouting, and guiding, national discipline scheme and military training. It is not even health education. Physical education and health education are two distinct, though related to each other, aspects of education; each has its own field and scope. A combined title, physical and health education, is suggested for the sake of administrative clarity and convenience. This title enjoys general acceptance.

Physical education is the education of the 'whole child' - physical, mental, moral, social and emotional, through interesting and self-directed physical activities. Williams defines physical education as "the sum of man's physical activities, selected as to kind and conducted as to outcome" Selection of proper activities as to kind implies taking into consideration the nature of man, the activities that have made him structurally and functionally what he is today, and the activities that must be participated in to ensure proper biological succession. This means our programme of physical education should consist of those natural, racially old and big-muscle activities in the form of games, sports, athletics, aquatics, outings, excursion etc., which appeal to the inherent interests of the participants and which equip them fully to live effectively as the member of the society. Conducting of activities as to outcome implies a highly qualified and intelligent leadership, who has a scientific knowledge and a sympathetic understanding of the human nature. - a leadership that employs these natural activities to develop in the participants a high standard of social and moral conduct, and skills that function in life.

The main educational objectives of physical education are the development of organic vigour so that every individual may live at his highest possible level, the development of neuro-muscular coordination or skills, the development of right attitude towards play and towards physical activities in general, the development of desirable social attitudes and conduct and the development of correct health habits.

Thus, expressed in harmony with the established facts of biology, psychology and sociology, physical education may be regarded to be a truly educative process, and has, therefore, a claim for inclusion in a dynamic programme of teacher education.

PRESENT POSITION

Bearing these fundamental concepts in mind, we may, now, assess the present position of physical and health education in the teacher training institutions in this country.

It is only in one university *i.e.* in the Punjab that we have Health and Physical Education as one complete paper for the B.T. examination. Even there, it is an optional paper. In other universities, health education and physical education, generally, do not occur together. The position of health education is rather peculiar. In the first instance, except one, there is no university, where it is an independent, compulsory or optional paper for the B. Ed. examination. The only exception is the university of utkal, where a whole paper on 'Hygiene of the School Child' exists. In other universities it is either a part of a paper on educational psychology, or is tagged to a paper on administration, organisation or management. In the university of Delhi, however, it does not find its name in any paper, though it is included in a paper on 'Modern Indian education, its development and recent history ; its organisation and practice.' Similarly in the university of Mysore, it is included in a paper on 'Educational administration, organisation and school management', and there is no mention of health education or school hygiene. In the Aligarh Muslim University also it is included in a paper on "Educational administration and school organisation" and there is no mention of school hygiene.

Secondly, its nomenclature and the nomenclature of the papers which include it are different in different universities. In nineteen universities it is called health education, in eleven it is called hygiene or school hygiene, and in three, there is no name for it. Does health education mean the same thing as school hygiene ? The former is, generally, accepted to be a more broad-based term than the latter. Similarly the diverse names of the paper for the B. Ed examination, which include it are :—

1. Educational psychology and health education.
2. School organisation and health education.
3. Health education, citizenship training and physical education.
4. School management and hygiene.

5. Educational psychology, educational measurement and health education.
6. General methods, school organisation and school hygiene.
7. Modern Indian education, its development and history, its organisation and practice.
8. Secondary school organisation and health education.
9. School organisation, administration and health education.
10. Educational administration, organisation and school management.
11. Health and physical education.
12. Educational administration and social and health education.
13. Administration and problems of education,
Sec. One—School organisation, management and Hygiene.
Sec. Two—Problems of education and educational administration.
14. Educational administration and school hygiene.
15. Educational administration; Sec. One – school organisation and management; Sec. Two – school hygiene and administration.
16. Hygiene of the school child.
17. School administration and health education.
18. School organisation and Hygiene.

In thirty-three universities, there are eighteen different names the papers bear, which include school hygiene or health education. There is no doubt that except in one in all the other universities, health education is a part of a compulsory paper, and therefore, we seem to be pretty sure about its importance in a programme of teacher education. But we are, definitely, not sure about the place where it should occur. Should it be an independent paper, or should it be included in a paper on educational psychology, or administration, or organisation, or management, or physical education? This needs careful consideration.

In regard to the contents of the syllabi also, there is no homogeneity. There are some universities which have prescribed detailed and explicit syllabuses for school hygiene for the B.Ed. examination; for instance the universities of Agra, Andhra, Annamalai, Rajasthan, Utkal. There are other universities which have prescribed brief and vague syllabi; for instance the universities of Calcutta, Delhi, Gauhati, Gorakhpur, Jabbalpur and Teachers' Training Colleges in the State of Bihar. In the state of Bihar for health education syllabus we have "The six systems – nervous, muscular, [respiratory,] circulatory, [digestive and excretory] systems, nutrition and diet. Common diseases and their prevention."

That is all. In the university of Calcutta we have only "Health of school children, personal and school hygiene. Medical inspection. School sanitation, conditions of healthy physical life and development of children at home and at school. Tiffin in schools. Function and responsibilities of teachers, with reference to health and disease" as syllabus for school hygiene. A comparison of these two syllabi with the syllabus prescribed by the university of Andhra would make the point clear. Andhra University prescribes:—

1. Introduction : (a) To be effective, instructions must centre round healthful experiences gained during the entire training course.

(b) Three important aspects of health education : 1. Health Supervision. 2. Health Service. 3. Health instructions.

2. Health supervision :—includes all these procedures by which the hygiene of the school environment is maintained at a high standard. Cleanliness of the school plant, school buildings, classrooms, lavatories, playgrounds, gymnasias, etc., to receive special attention from the administration as well as from pupil teachers. Cooprative effort to promote healthful school living conditions, orderliness and beauty.

3. Health service: Health examination, follow-up and correction of defects – provision for protective measures such as vaccination, inoculation etc., school health clinic.

4. Health Instruction: Aim to provide necessary health knowledge and method of teaching pupils the ways of healthful living.

I. Personal Hygiene : (a) Care of skin, hair, scalp, feet, hands, teeth, mouth, nose, throat, ears, eyes and organs of excretion.

(b) Fresh air and sunlight, exercise, rest and sleep; nutrition and wholesome eating habits.

II. Mental and emotional health :—(a) Importance of a healthy mind and a healthy outlook.

(b) Importance of healthy relationships and contacts with others.

III. Sex Education : Aim to impart knowledge of sex and reproduction, and methods of teaching sex education (individual talks, film strips, wholesome literature etc.) Necessity for sympathetic understanding of sex problems.

IV. Community Hygiene : Communicable diseases, their cause, symptoms, methods of prevention & prophylaxis isolation, quarantine, etc. Water supply and disposal of waste.

V. Common ailments of school children : Diagnosis of common ailments such as scabies, whooping cough, measles, sore eyes, ringworm,

common colds, influenza, etc. Method of making a daily health inspection.

VI. Safety Education and First Aid : (a) Safety measures in the home, the school, the playground, and the highway.

(b) First Aid: Treatment of injuries such as fractures, dislocations, haemorrhage, asphyxia, hysteria, epilepsy, fainting, poisoning, etc.

VII. Health Projects—Health weeks, health survey, health exhibitions, cleanliness campaign, visits to hospitals, clinics, welfare centres etc.”

What a vast difference between the contents of these syllabi ! This difference is due to the difference in the basic concepts of health education or school hygiene.

1. Two relevant questions are : Should we have detailed, clear-cut and explicit syllabi or vague, brief and implicit ones ?

2. Should we have uniform and homogeneous syllabuses or diverse and heterogeneous ones ? There are certain universities that have included practical work for health education. For instance the university of Madras has included “(i) Maintenance of a health record, (ii) health supervision-maintenance of the cleanliness of school buildings, classrooms, lavatories, playgrounds etc. (iii) health weeks, health surveys, health exhibitions, cleanliness campaigns, visits to clinics, welfare centres etc.” The university of Punjab has prescribed, “For practical Examination in health and physical education each candidate should draw the following diagrams :-

1. Circulatory system
2. Respiratory system
3. Digestive system
4. Excretory system
5. Nervous system
6. Health tree
7. Food Chart.”

We may note the difference between the items of practicals in health education in the universities of Punjab and Madras. This difference is again due to different concepts that we have about health education. In the case of Madras it is practice in maintaining health records and cleanliness campaigns, whereas in the case of Punjab it is drawing of the diagrams of various systems of the human body. There are many universities that have paid no heed to this problem of the provision of practical training in health education,

PHYSICAL EDUCATION

Physical education has a different position than health education in the programme of teacher education in this country. Unlike health education it is generally an optional paper for the B. Ed. examination. There are universities where it is one of the options of a regular paper. In some other universities, it is one of the papers a trainee "may" offer. There is a third category, where physical education is a part of compulsory paper on 'current problems in Indian Education'. The course content too, differs radically from university to university. As in the case of Health Education, here too, some syllabi are very detailed and some very vague.

In most of the institutions the programme of physical and health education is rather unsatisfactory. There is no uniform or national policy in this connection. We have not been able to realise so far that there are only a few colleges of physical education in this country; and because of this lack of sufficient training facilities, there is a huge dearth of physical education teachers for our schools and colleges. In such a situation teacher training institutions constitute a potential force in disseminating knowledge and providing skill to their trainees in physical and health education, so that after their graduation, they may, besides working for their special fields, take charge of the 'whole child', and be of immense help to the teachers of physical education in their schools.

SUGGESTIONS FOR IMPROVEMENT

What shall we do to improve the present position ?

- I. In teacher-training colleges, as in other educational institutions, physical and Health Education may be organised and conducted as one department, under the leadership of lecturer in Physical and Health Education.
- II. Physical and Health Education may be made a compulsory subject for all the B. Ed. candidates in all the universities. There may be a theory paper of 75 marks; 25 marks may be reserved for sessional work. There may be 50 marks for practical work.
- III. The theory paper may include :
 - (a) Health Education.
 - (b) Physical Education.

Health education part may consist of :—

1. *Modern concept of health and health education.*
2. *Healthful school lining :—*
 - (i) Its objectives-wholesome atmosphere, healthful school day, desirable relationships.

- (ii) Site for the school building.
- (iii) Building and equipment.
- (iv) Suitable seating arrangement.
- (v) Hygiene of instruction.
- (vi) Ventilation.
- (vii) Lighting.
- (viii) General House keeping.
- (ix) Drinking Water facilities.
- (x) Handwashing facilities.
- (xi) Toilet facilities.
- (xii) Facilities for physical Education.
- (xiii) Teacher an example in social and emotional health.
- (xiv) Teacher an example in physical health.
- (xv) Teacher an example in personality.

3. *Health Services :*

- (i) Objectives-health assessment, health protection and health correction.
- (ii) Periodic physico-medical examination.
- (iii) Health observation and health inspection for signs of defects and diseases.
- (iv) Immunization-vaccination and inoculations.
- (v) Follow-up procedure to secure correction of remediable defects.
- (vi) The use of family physicians, dentists, clinics, hospitals and other agencies for the care and treatment of those in need of such service.
- (vii) First Aid, home nursing and care of sudden illness.

4. *Health and Safety Instructions*

- (i) Objectives-wholesome habits, desirable attitudes and adequate health knowledge.
- (ii) Direct and incidental teaching.
- (iii) Different instructions for different age groups.
- (iv) Elementary knowledge of human mechanism.
- (v) Personal Hygiene—Bathing, clothes, exercise, posture, fatigue, rest and relaxation, mid-day meal, food and nutrition, elimination, foot hygiene, fresh air and respiration, care of skin, hair, nails. mouth, nose, ear and throat, rest and sleep.
- (vi) Social hygiene and sex education.

- (vii) Mental hygiene—nature and development of personality, mental conflicts, adjustment to new situations.
 - (viii) Recreation.
 - (ix) Safety education—important areas, fire prevention, panic control, traffic safety, industrial safety, athletic injuries, first aid.
5. *Function and responsibilities of teachers with reference to health and disease.*
 6. *Common ailments of children.*
 7. *Communicable diseases—their causes, prevention and cure.*
- (b) *Physical Education :—*
1. Modern conception, principles, aims and objectives of physical education.
 2. A general survey of the past and present trends in physical education in India and abroad. Story of the olympic games.
 3. Interests and needs of secondary school children. Activities and programmes according to sex, climate, facilities and other exigencies of the time-table.
 5. Organisation and administration of Games and Sports. Sports meets, tournaments-knock out system, League system.
 6. Individual and standard efficiency tests.
 7. Intramural and interschool sports.
 8. Rules of Games and Sports-Hockey, Foot-ball, Volley-ball, Basket-ball, Net ball, Throw-ball, Badminton, Athletics.
 9. *Indigenous games and exercises.*
 10. Playgrounds, play centres, public recreational grounds.
 11. Scouting and Girl-guiding, excursion, hiking and educational trips.
 12. Method of teaching various types of physical activities; lesson planning in physical education.
 13. The value of eurhythmics and folk dancing.
- (c) *Sessional Work*
- (i) Two tests
 - (ii) Four assignments
- (d) *Practical Works*
- (i) Participation in formal activities like marching, callis-thenic, gymnastics etc.
 - (ii) Participation in games and sports.
 - (iii) Conduct of ten planned lessons in physical education at the practicing schools.

- (iv) Supervision of Games and Sports.
- (v) Keeping health records of five children of the practicing schools and doing the necessary follow-up work.
- (vi) Organisation of health weeks, cleanliness compaigns and sports festivals.
- (vii) Organisation of excursions, hiking and outdoor trips.
- (viii) Organisation of one dual, triangular or quadrangular Track and field sports meets.

IV. physical education in the teacher training institution may be organised and conducted not as a therapeutic measure but as a truly educative process. Attention may be focused not merely on exercise, perspiration and body building, but on providing physical activities, which properly conducted, result into experiences that bring about a wholesome change in the behaviour pattern of teacher-trainees.

Ethical values, inherent in playing games with and against others may never be lost sight of.

Achievement of a high standard of social and moral conduct, and national utality based on character values as well as those of physical stamina through wholesome physical activities, may be regarded as the main objectives.

Health, development of organic vigour, insurance of functional skills for leisure time, recreation, stimulation, of interest in play, and setting high standard of behaviour may always be kept before mind's eye, while organising physical and health education.

V. Spacious playground are essential for a satisfactory programme of outdoor play activities. Depending on the strength of institutions there should be at least ten acres of play space for training institutions.

A Gymnasium and a swimming pool may be provided to each training college.

VI. Half an hour of morning jerk, one theory-period during the day, and one hour of instruction period or play programme in the evening, everyday would be enough.

VII. Practice in Physical and Health Education programme in different institution may vary according to facilities, climate and other local conditions. However, rhythmic activities, self testing activities, athletics and games and sports may be included in the programme. It may not be built upon some particular system or table of artificial exercises nor upon any rigid scheme of standardization.

VIII. Sufficient and varied equipment is essential for a good programme of physical and health education covering a large number of activities. It is not essential to go in for costly pieces of goods. Teacher Trainees, however, may have experience in care, maintenance and storage of equipment in schools.

IX. A comprehensive programme of physico-medical examination of the teacher trainees may be organized. It would provide them with incidental teaching hour to coöperate with the school physician.

An effective programme of 'follow-up' procedures may be organised.

X. The pernicious habit which students have of exercising vigorously in street clothes with no bath and no change of clothing following the exercise is a gross violation of the fundamental principles of hygiene. Students should be in their sports-kit while participating in physical activities. They may carry this practice over into their respective schools.

These are some of the suggestions, which, if carried out, would result into enrichment of experiences provided at the teacher training colleges, and would, directly or indirectly, influence secondary school education.

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CHAPTER XII

TEACHERS OF MOTHER-TONGUE

[Anil Vidyalankar]

[LANGUAGE is the basis of learning all other subjects and as such, deserves the utmost attention that can be paid to it. With the introduction of the Mother-Tongue as the medium of instruction in all States, Indian languages have acquired a new dignity and vigour. This should be reflected in the teacher education schemes also. Sri Anil Vidyalankar, of the National Institute of Education, emphasises the difference in approaches (often lost sight of) in teaching alien languages and the child's own mother-tongue. The objectives, and hence both the curriculum and methods of teaching, should be entirely different. The mother-tongue, is a "tool" not only for understanding and manipulating the environment, but also a means for achieving the main educational aim of "full development of personality." The creative, aesthetic and appreciative aspects loom large in the teaching of mother-tongue. The emotional development and social insight into one's own cultural pattern; depend on the "oneness" one feels with one's own mother-tongue. Hence, the teachers of mother-tongue need special preparation and clearer vision of what they propose to undertake and unconsciously achieve.]

THE THREE-LANGUAGE FORMULA

The future pattern of language teaching in our country will be broadly based on the three language formula according to which a school child would be required to learn (i) his mother-tongue or regional language (ii) Hindi or another modern Indian language and (iii) English or another foreign language. Sometimes it is said that the compulsory teaching of three languages would prove too heavy a load on children who find the school curriculum already overburdening. This fear is mainly due to the wrong notion prevailing about teaching these languages. Teaching a second or a foreign language does not mean acquiring as good a command over it as one has over one's mother-tongue. There will always remain, and there should remain a grading in one's acquisition of skills in different languages. In India, thirteen main languages are being

currently spoken and all our children have one of these as their mother-tongue. All of these languages have rich cultural heritage and, given due opportunity to develop, can easily become the vehicle of most subtle thoughts and ideas. These languages in their respective areas will serve as the medium of instruction from the lowest to the highest level, and will thus be the bases of our children's mental, social and moral development. One of these languages would naturally be the first language of all the school-going children and it is over this language that they should have a complete mastery.

Hindi or another Indian language and English or another foreign language would be the other two languages to be studied by the school children. For some time to come, English will remain the most accessible source of new ideas and knowledge while Hindi will gradually take its place as the medium of inter-communication among states and among people. But in neither of these two languages, the children's command would be as good as in their mother-tongue. Nor is there any reason why they should try to acquire such a command. If English is to serve its real purpose of being a source of information, we should be more than satisfied if all our children acquire a passive knowledge of it so that they are able to consult the reference works and get the necessary information, while a very small minority of them are able to have an active command over it in written and spoken form, to be able to maintain a living contact with the English speaking people. Even Hindi in the non-Hindi speaking areas would not have the same place as is held by English today. Everybody in our country would be expected to know a little Hindi so that he is not inconvenienced if he travels outside his state. Those who would go to work in such offices where inter-state communication has to be maintained would be required to have a slightly higher knowledge of Hindi. But as the level of the office-language (even official-language) is never very high, a three to five year course with one period per day should suffice for most of our children to enable them to learn Hindi of the office level. English as the medium of communication in the intelligentsia and the literary circle of the country would be gradually replaced by Hindi, but no special training will be necessary to have proficiency in Hindi, at such a level. As the vocabulary of higher thought is almost common in all the Indian languages except Tamil, it should not really be difficult to acquire a degree of proficiency in Hindi that would enable our intellectual elite to be understood in any corner of India. The mother-tongue or regional language of a person would be the basic tool of his thought. He would try to perfect this tool as much as possible

and would use Hindi, English or any other language if and when necessary.

Thus if these different objectives of teaching different languages are kept in view, and their syllabi are framed accordingly, it should be possible to avoid much waste of time and energy of the students and also the resultant unnecessary tension arising out of and effort to make a second or third language a competitor of the mother-tongue.

SPECIAL ROLE OF MOTHER-TONGUE

One of the basic shortcomings of our educational system, is that we regard the mother-tongue of the children only as one of the subjects taught along with so many other school subjects. Even as a subject, mother-tongue is not given the attention it should receive at the hands of the teachers and educational administrators. There are schools, some of them very popular and regarded as most advanced ones, where the mother-tongue of children is relegated to such an unimportant position from the very first day of the children's life at school that they not only begin to neglect it but very often begin positively to detest it.

The mother-tongue of the child is not only one of the subjects that the child studies at the school, but being the vehicle of thought, it is also the basis of the child's intellectual, social and moral development. The mother-tongue is the basic tool through which children establish living contact with the outside world, and if it is neglected in the learner's formative years the natural consequence would be stultification of their personality.

Only the mother-tongue can have access to the remotest recesses of human consciousness and, therefore, it is the teacher of the mother-tongue that can exercise the greatest influence on children's character. Besides, we have to prepare the coming generation in India to shoulder all the responsibilities of independent citizens, to think independently and be able to act swiftly and efficiently according to the demands of the time. For these qualities a much better command over languages than what our children at present have is required. The language of their thought must arise from the environment in which they live and must become an integral part of their conscious being. No language can serve this purpose as well as the children's mother-tongue.

The good teaching of mother-tongue, therefore, must be regarded as the most important part of children's education, and the teacher of mother-tongue as the most important teacher in the school. His training for his profession should also receive greatest attention at the training college.

It is in this background that the question of the preparation of the teachers of mother-tongue should be examined.

INTELLECTUAL EQUIPMENT OF THE MOTHER-TONGUE TEACHER

Foreign language has its own importance in the educational programme of any country but unfortunately English as a foreign language in our school programme acts as the competitor of the mother-tongue. Whosoever wants to make a bright future for himself in our country leans towards acquiring proficiency in English. Mastery over one's own language is not supposed to have a good market value, and, as a consequence, many of our children, as soon as they begin to learn English, also begin to neglect their mother-tongue. This tendency continues right upto the end of the college education, and, therefore, it is not at all surprising that very few of our graduates have a really good command over their own language.

Now, it is out of these graduates and post-graduates that the future teachers of mother-tongue are prepared. At a recently held All India Seminar of Training College lecturers in Hindi it was the unanimous opinion of the participants that very few of the teacher-trainees under their guidance ever make the grade so far as the knowledge of Hindi is concerned. They have themselves been neglecting the language whose teachers they are preparing to be.

To be a good teacher of mother-tongue, it is essential for the teacher to have a perfect command over the language and this is possible only when he has deepest love for his language and does on cultivating it throughout his teaching career.

Besides having a good knowledge of the language, a teacher of mother-tongue has to know something about almost all the branches of knowledge. While teaching a textbook in language, he will have to deal with so many subjects described in the lessons. This background knowledge of different subject is a must for the teacher of mother-tongue.

Then, a teacher of mother-tongue must have a creative personality so that he may make his students creative which is the most important function of teaching mother-tongue. A teacher whose sole concern is the teaching of the mechanics of a language can be a good teacher of a foreign language but not of mother-tongue. A teacher of mother-tongue has to teach not only a language, but about life itself.

It will thus be seen that to be a good teacher of mother-tongue requires, beside linguistic skills, a high degree of intellectual accomplishment. But, unfortunately, most of our mother-tongue teachers, think

that their only duty is to tell the meaning of difficult words and passages and ask the students to write a few explanations of prose and poetry pieces and a few essays. They do not try to grasp the real meaning of the teaching of mother-tongue and change their teaching methods accordingly.

This negligence on the part of the teachers, coupled with the general atmosphere of the school which is hardly conducive to the development of love for Indian languages, has a most harmful effect on our children. Some of these children, when they grow up become teachers of Indian languages and produce still worse students.

IN TRAINING COLLEGES

The teacher-training institutions, both at the post-graduate and under-graduate level, contribute in no small measure to the sorry state of affairs mentioned above. In most of the training colleges the teaching of an Indian language is still regarded as the easiest thing, and it is not an uncommon experience for a lecturer in mother-tongue to be asked to allow some very weak students in the training class to offer mother-tongue as one of his practice-teaching subjects simply because he could not teach any other subject. "Oh, anybody can teach an Indian language to young children" is the curt reply received by the lecturer concerned who insists on maintaining some quality in his class. This, of course, demoralizes the lecturer and his students.

While in all other subjects a minimum qualification is required of the pupil-teachers who are allowed to offer a certain subject, for practice-teaching, no such qualification is supposed to be necessary for the teachers of Indian languages. That they can manage to read and write in a language is regarded as a sufficient qualification for becoming its teacher. Finding pre-service teachers who offered Hindi as one of the subjects in their Matriculation examination and doing bad teaching of the same to VIII class students is not an uncommon phenomenon. Such teachers not only cannot teach the subject well to the school children, they also tend to lower the general standard of the training class in mother-tongue where the lecturer concerned has to spend much of his time in correcting the pronunciation and spelling mistakes of these teachers and explaining to them fundamental rules of a language they are supposed to be proficient in.

Then, even in the training colleges, the impression prevails that mother-tongue is the concern of only of the teacher of mother-tongue. The fact is usually forgotten that almost all the higher secondary schools in the country have changed by now to the regional languages as the

medium of instruction. It means that almost all the teachers of secondary schools will be using an Indian language to establish rapport with their students and impart knowledge to and inculcate life's ideals in them. For this reason alone proficiency in at least one Indian language is a 'must' on the part of all the inservice teachers. If our future teachers do not know well the language through the medium of which they are teaching, they will not only do a bad teaching of their subject but also spoil the efforts of the mother-tongue teacher to improve the language of the children.

THEORETICAL ASPECT

All Pre-service teachers of mother-tongue have to study, besides having practical training in the teaching of the subject, a syllabus in the theory of the teaching of mother-tongue. This syllabus is based on or is sometimes even a copy of the syllabus in the teaching of English. It hardly needs any argument to prove that there is a world of differences between the teaching of mother-tongue or the first language and the teaching of the foreign language. The aims, objectives and methods of teaching of the two languages have to be entirely different. But when an attempt is made to conform the pattern of teaching of mother-tongue to that of a foreign language, standard of its teaching is bound to deteriorate. Very often the teacher-trainee in the mother-tongue is given the impression that his main concern, like that of the teacher of English, is to correct the pronunciation and spelling mistakes and grammatical errors of the students. He feels that he should be more than satisfied if his students can speak and write correct language. The teaching of mother-tongue, in fact, does not end but begin here. While a foreign language would be mostly taught for comprehension and occasional oral or written expression, a child's mother-tongue would be the basic tool for his intellectual growth and creative expression. The theory syllabus in the teaching of mother-tongue, therefore, has to emphasize the role of the language as an instrument of thought and creation rather than of possible understanding.

That, of course, does not mean that the language aspects of the mother-tongue needs any less attention. A pre-service teacher has to prepare himself thoroughly for that by having a good linguistic background. Many language teachers unfortunately do not have this background. Even those among them who have high qualifications in their subject, have studied literature and not language as such. In their teaching they often confuse language with literature. While students of

higher secondary classes would naturally study some literature, it is essential for them to have an insight into the mechanics of their language also. It would be desirable, therefore, to include in the theory syllabus in the teaching of mother-tongue, beside the usual topics related to the methods of teaching, some topics on linguistics, both general as well as those specifically related to the language being taught.

PRACTICAL ASPECT

The shortcomings in the theoretical part of this subject are naturally reflected in its practical training. Here too, the teaching of mother-tongue usually follows the pattern of the teaching of English. A model reading by the teacher followed by paraphrasing and explanation of difficult words is the usual pattern of teaching a lesson in mother-tongue. The questions put at the end are mostly of the comprehensive type in which the child usually repeats what is already said in the books. Hardly any effort is made to encourage independent thinking on the part of the students. Thus even when taught by the "training college method", the average school child does not get much more in a period than the meaning of a few new words.

We have to devise a new pattern of teaching of mother-tongue which would completely reorientate the outlook of the teachers and students towards their subject. Both the teacher and the taught should be given as much freedom as possible so that the real purpose of teaching the mother-tongue—the development of intellectual and creative personality—may be fulfilled.

The time given to practice-teaching in mother-tongue is also insufficient. In most of the training colleges, the number of lessons in practical teaching varies from 50 to 60 equally divided into two subjects. While mother-tongue gets as many periods as the second subject in practice-teaching, it is usually felt by the lecturers in training colleges that the teacher of mother-tongue cannot have adequate practice and guidance in just 25 to 30 periods. A teacher of mother-tongue has to teach many types of lessons like these in prose, poetry, drama, stories, grammar, composition, rhetorics, prosody etc. Co-curricular activities like debates, discussions, story telling competitions, enactment of plays, and wall-magazines etc. are other activities the responsibility of which the teacher of the mother-tongue has to shoulder in the schools. Good training, therefore, should be given in these things also to the teacher-trainees in mother-tongue. Twentyfive or thirty periods in a school is too short a time to acquire sufficient skill in all these branches. Some

way, therefore, has to be found out to give adequate time to the pre-service teacher of mother-tongue to prepare himself thoroughly for the various tasks outlined above.

PROPOSED PROGRAMME OF ACTIVITIES

The above mentioned discussion clearly shows that all is not well with the present state of preparation of teachers of mother-tongue.

Some suggestions are given below which might help us to think on the subject.

1. Only well qualified pupil-teachers should be allowed to offer mother-tongue as their teaching subject. Higher Secondary classes should be given only to those who hold a good master's degree in the subject. Graduates with bare pass marks in the subject should not be given even middle classes to teach.

2. While these teachers are under training, a strict watch should be kept over their performance to determine to improve it. These who do not show signs of improvement should be asked to quit the subject.

3. It should be brought home to the teacher-trainees in mother-tongue that they would not only teach a language, but, through it, help the children to acquire knowledge in other subjects. For this they must prepare themselves by acquiring basic knowledge in as many fields as possible, especially in the natural sciences. They should regard it as a basic part of their training programme.

4. The syllabus in theoretical study in the teaching of mother-tongue must be completely reorganized. It should lay emphasis on the teaching of the first language as an instrument of intellection and creation.

5. Some training in the fundamentals of linguistics should form part of the theory syllabus. The teachers of mother-tongue have to have an insight into the structure of their language to be able to teach it well.

6. The minimum number of practical lessons in mother-tongue should be raised to forty so that a teacher-trainees can learn to teach all branches of the language. At the same time he should also be trained in the organisation of the co-curricular activities.

7. The teachers of mother-tongue should be given an opportunity to discuss their problems with the experienced teachers of the subject. They should visit the classes of the latter and take part with them in seminars and workshops.

8. The language teachers exercise great influence in the formation of children's character, and for this they should have a deep background of psychology, especially the formation of concepts and attitudes. To

enable his students to be creative, he himself must first acquire a creative personality and be able to take initiative when no guidance from outside is available.

10. Last, but not least, the atmosphere of the training colleges should be so changed that Indian languages occupy their due place. A teacher of Indian languages should not be made to feel as if he is fighting for a lost cause. His would be the most important part in the building of children's personality. He must be given an opportunity to realize this importance.

1891

CHAPTER XIII

TEACHERS OF HISTORY

(R. Vajreswari)

[IN a scientific world, Liberal Education is finding it hard to keep its head above the roaring waters of materialism, down-to-earth Realism, and Utilitarianism. Yet, if humanity is to justify its name, surely, humanities must have a place in human culture and civilization—however technological or even technocratic, it may transform itself into. History has been the inspiration of poets, artists, philosophers and even scientists. All that makes the “featherless biped” human, is owing to the traditions and the “past” transmitted from age to age, Shrimati R. Vajreswari, of St. Christopher’s Training College, Madras, views the place of history in Indian education and what it could achieve, if but it be given a chance to prove its mettle. The reorganization of the secondary school syllabus in the light of changing concepts and the repercussions on teacher-preparation well deserve thoughtful consideration from those who formulate policies and guide the destinies of training colleges.]

INTRODUCTION

Indian Education to-day is at the cross roads and hence there is need for a fresh and dynamic approach to some of the problems of education. The impact of the scientific and technological revolution on the one hand and the commitments of a democracy on the other, have intensified the situation. The development of education has two aspects namely—the quantitative expansion and qualitative improvement and neither of these can make much headway, without reference to the other. So the expansion of secondary education at a rapid pace, involves a bold and clear thinking of the aims of education and the means through which they could be implemented.

There is a constant search for a ‘balanced curriculum’ in every system of education. The so called rift between the “Two Cultures”—Scientific and humanitarian studies—has been engaging the attention of educationists in some of the western countries. Our secondary education

has been academic and theoretical and now there is a great stress on the teaching of the sciences. At this stage, it is all the more necessary for us to realise that history which holds a pivotal position among the social sciences, should be placed on a strong footing.

NATURE OF HISTORY

There is no agreed definition of history as it is not easy to define. Conflicting views have been expressed regarding the nature, significance and values of history. This reveals an important truth that history is not a mere chronicle of events, a rope of sand but a wreath with the events strung on the thread of ideas. Hence each interpretation of history mirrors many factors like the approach of the historian, the dominating influences of the age in which he lives, the meaning he gives to facts and figures, the type of evidence he uses, the availability of new techniques, the influences of the new branches of social sciences etc., So the historian has to reconsider the nature and scope of his subject and re-define and re-draw the scale of his work periodically.

He has to consider not only individuals and societies but also the forces behind these and present a three-dimensional picture of the human past. A simple working definition of history could be stated as follows 'History is a significant record of events of the past; it is a meaningful story of mankind, depicting the details of what happened to man and why it happened.'

The word 'History' is of Greek origin and originally it meant 'inquiry'. But it has been used to refer not only to the process of inquiry but also to the narrative aspect of history. To avoid the confusion of the twofold connotation of the word, modern writers use two different words. 'History' is used to indicate the process of human development in time and Historiography to indicate the conceptual study of and writing about that process.

Brief glimpses into the following questions reveal the inherent nature of history. History is a comprehensive field of study and in the present century it has become vast in extent and depth, comprising the whole world. Hence the process of historical work involves selection and narration. The views and convictions of the historian play an important part in the interpretation of history. The historian, like an artist, is a product of his age and we get glimpses of that age in his work. He gives us a series of portraits of the past, communicates the visions he has had, displays the beautiful and the ugly, unravels the mysterious, interprets the trends and indicates the future. In gathering, selection and interpretation

of historical evidence, imagination plays an important role. The historian has to use the imaginative faculty in a disciplined manner.

Facts are unique in history as they are not open to direct inspection. There are plenty of traces of the past that have to be studied and used for the establishment of historical facts. The historian has to be scientific in his approach to the sources of history while in the presentation of the facts, he has to display the touch of a man of letters. So the historian is not just a mirror reflecting the past events because he looks at the past from a certain point of view. He has to be more of a prism to analyse the picture of the past or a telescope to bring that which is distant more near. He needs a stereoscopic vision, so that a three-dimensional picture of mankind is presented.

In addition to these general problems of historical studies, history of India, presents two more difficulties. The long and tangled past out of which the present has emerged and the undercurrent of the unity of culture that runs through the variety, is a unique feature of the history of India. Though there is a vast amount literary works, historical texts and writings are very few. The unbroken continuity on the one hand and the paucity of historical treaties on the other, have been the obstacles in the way of the historian. These have been accentuated by prejudices of every kind that influenced historical accounts from time to time. As it has been rightly pointed out 'the historian of India has to take a stereoscope view of the history of the people of India and to envisage the past in terms not so much of a national battleground as of a common historical process.'

A nodding acquaintance with the nature of history is indispensable for a teacher of history. The ideal state of affairs is one where the school history should in some measure be a reflection of the vitalising aspects of the subject and not be reduced to deodorized history.

The concept of history influences the values of teaching it and both these factors shape the content of the course. A proper study of history should reveal the mystery of the past and illuminate the present. One of the oldest and fundamental values claimed for history is the moral value. Human factor is the central theme of history and so great personalities will be studied for their example. Some have stretched the ethical value of history to include the inculcation of patriotism. To-day, it is the unbiased study of the national history in the wider setting of history of mankind, that would foster the right type of patriotism. Another important motive for teaching history is to convey the heritage of the past to the child. The child is the heir to all the ages from the stone age to the space. Our purpose should be to highlight the significant phases of the

heritage of Man so that we can derive inspiration for the present and guidance for the future.

AIMS OF TEACHING HISTORY

A host of intellectual values such as training the memory, developing reasoning power, critical judgement etc., had been claimed for historical studies. We can safely say that it provides opportunities for intellectual discipline by way of reading widely and with discrimination, developing a critical attitude etc.

India is infinitely rich in historic treasures and monuments and a realistic study of history should add a 'new dimension' to understanding. The past is alive and is treasured in our literary works and so the joy of reading is heightened by a knowledge of history. The child should be introduced to the relevant sources of history so that later on he knows where to turn for help in his voyages of exploration.

The concept of history has been influenced by philosophical psychological and scientific developments. The impact of this is noticeable in the history curriculum of the United Kingdom in the last sixty years. There is a remarkable variety, both in the content and methods of teaching, in the different types of schools—The Public School, the Grammar School, and the Secondary Modern School—The organisation of the subject matter has been influenced by three main approaches. They are, Outlines of history, Lines of Development and Patch method. Outlines of history is the oldest approach and traces the history of the country from the earliest times to the present era. To deal with the increasing depth and richness of the subject matter lines of development was advocated. The essence of this method lies in the choice of certain specific themes of study, suitable for the age, ability and interest of children. Themes such as houses, transport, trade, clothing, medicine could be traced through centuries, on a global scale. The 'patch method' aims at illuminating the past and making it alive for the child. By a careful selection and detailed study of the patches, opportunities would be provided for imaginative experience that would help the child to get the 'feel' of the period studied. None of these approaches could be used exclusively and they have to be combined in a certain proportion to yield the best results.

The story of history teaching in our country is closely linked up with the development of Secondary Education. Previous to that, as in other societies, a wide source of precedents including legendary stories of gods, the exploits of the epic heroes, the lives of great men and women have been used in initiating the youth into the cultural heritage of our country.

A NEW APPROACH

In 1948, Madras state had the distinction of starting a scheme of Social Studies in the place of History and Geography. The United States of America is the home of social studies and it could thrive in a country unfettered by long history and unhampered by economic backwardness. The pioneering work done in Madras by transplanting the scheme of Social Studies was substantially given up in 1958. In spite of some of the defects of this approach, it focussed the attention of teachers on the need for a broad-based approach to history and the importance of the recent developments in the World.

Thus the narrow, single track approach with its cobwebs of chronological and concentric details had been discredited. The pendulum swung to the other extreme and now there is a heavy, burdensome syllabus from standards IV to X. Changes in this scheme are under consideration.

It must be recognised that no syllabus could be ideal for all times. Nor should there be a single pattern of work for all types of schools. It is time that certain amount of freedom is given to schools to organise the subject on an experimental basis. So we have to think afresh about the problems of history teaching in our schools. Clear and hold thinking alone can help us to break fresh grounds, both in the curriculum and methods of teaching.

The foundations of history teaching should be strengthened. For the age group 8 to 10 (standards III to V) history should mainly be a carefully chosen and graded series of stories woven with attractive descriptive details. This would rouse the interest of children and provide scope for imaginative understanding and thorough enjoyment. The children should be encouraged to express their ideas in lively sketches, drawings, short descriptive accounts and hand-work such as the preparation of friezes, cut-outs, clay models etc.

The plan of work for standard VI to XI would be more complex and will be decided by many factors. This period has to be divided into two convenient phases, perhaps of three years duration each. What should be the priority of values in teaching history? How much and what aspects of local and national history should be included? What prominence should be given to Asian and World history? These are fundamental questions that framers of syllabus should answer. For standards IX to XI some 'Depth' study in addition to general history should be provided. Whatever syllabus is introduced, it should be revised.

periodically in the light of the changing needs of society and the experience of teachers.

The change in the content of history is as important as the need for a revolution in the methods of teaching. There is no one method of teaching history but there are many delightful roads to learning. Whether it is individual class teaching or group work, the teacher should aim at reconstructing the past and re-vitalising the story. He can move forwards and backwards in time; he can fly into outer space and present a global glimpse of history. It is only by creative methods of teaching that the child would discover the present and get peeps into the future. Provision should be made for an analytical, comparative and lively study of trends and tendencies instead of a chronological piling up of facts and figure. Let the children 'Discover India' through a study of pictures, maps, charts, books, visits and personalities. Let them discover the key that will open many doors of historical knowledge and give them the sheer delight of learning. Let there be ample provisions for listening to school broadcasts, visiting museums and places of historical importance, dramatising historical themes. etc.

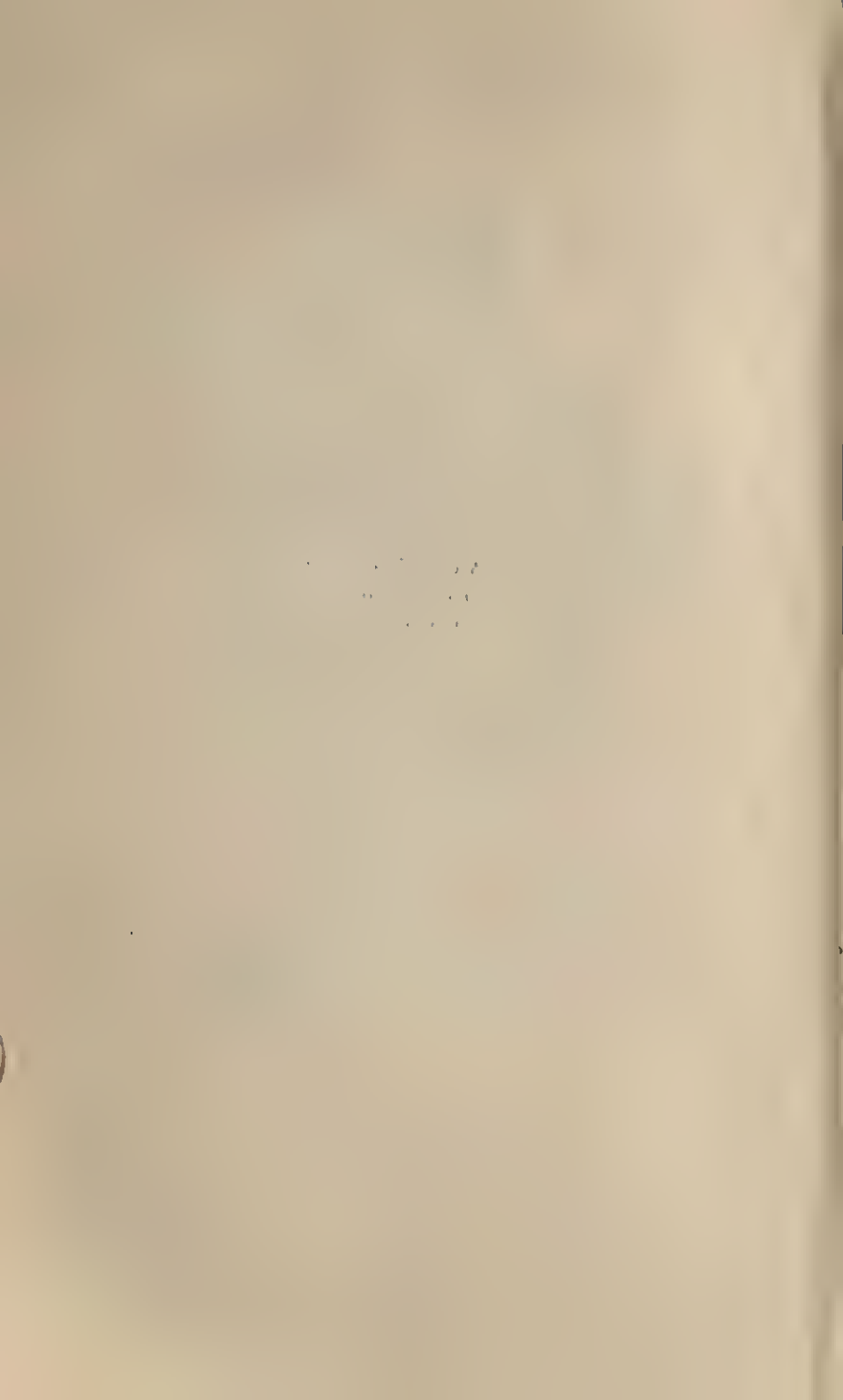
To-day there is a great need for widening the horizons in historical studies. The children should experience the thrill and enjoyment of being citizens of the world. Under the auspices of Unesco, a major project entitled 'Mutual Appreciation of Eastern and Western, cultural values' has been launched from 1957. The main purpose of the project is to lay stress on the understanding and appreciation of the cultural contributions of the peoples of the World. 'The Associated Schools project' provides opportunities for school children all over the world to 'hitch their wagon' to the star of International understanding.

Implementing a broad-based curriculum through creative methods of teaching, demands a new role from the Teacher of history. The teacher has to be an interpreter, fellow-adventurer with the pupils and a scholar.

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CHAPTER XIV TEACHERS OF GEOGRAPHY

(S. N. Katiyar)

[GEOGRAPHY is one of the subjects which seem to be rather in a "Slough of Despond." Very few Universities offer a post-graduate degree in the subject, which naturally has its repercussions even on the school curriculum. Sri S.N. Katiyar, of the Central Institute of Education, analyses the reasons of this seeming unpopularity. One of the major causes, is the lifeless way it is taught. This should, surely, be remedied, and that quickly, for, Geography is of great importance, even from a purely utilitarian point of view. The article gives an excellent syllabus, which allowing for time and enthusiasm, could work wonders at changing the attitude of students towards the subject, by proper preparation of the teachers who handle it.]

GEOGRAPHY IN EDUCATIONS

The position of Geography in Indian education is in a bad way. At the Primary and middle stages of schooling it has lost its entity to social studies. In the Secondary classes it is provided for as an optional subject in all the major groups—Humanities, Commerce and Science. But the paradox is that the provision for its teaching exists in very few schools all over the country. Even where it exists the subject is not offered by many students probably because of peculiar combinations in which Geography figures in the school programme. The combinations of subjects in the H.S. programme for which students make their choice inhibit the offering of the subject of Geography. This results in a small minority of students offering this subject at the University stage. In 1952 only eight Universities had the Department of Geography. Now most of the Universities have a Deptt. of Geography. In some it constitutes a Department of the Faculty of Science and in others it is in the Faculty of Arts. This shuttlecock position hinders the growth of the subject.

At the All India Science Congress held at Delhi in 1950, the Heads of Geography departments of various Universities complained of a depleted number of students coming to their departments. They were of the view that Geography from the utilitarian point of view admits of employ-

ment opportunities and in this respect it compares favourably with any other Universities discipline. According to them the number of Geography students has gone down because the subject is not universally provided for in our Schools.

The importance of Geography in education needs no justification. It is acclaimed far and wide. Of all the optional subjects provided for at the secondary stage, Geography is the most popular optional subject in Newzealand, Australia and U.K. Our educational system is on the model of the British pattern and before independence Geography was as popular a subject in our schools as elsewhere in the commonwealth countries. But with the in-road of social studies in the school programme the subject got a set back.

GEOGRAPHY VS. SOCIAL STUDIES

Social studies in Indian schools exists because of administrative support which has been very ingeniously denied to Geography. It is not even two decades yet when the subject went down the scale of esteem and utter ignorance of the facts of space on the part of secondary school leavers has become a phenomenon too evident to need an investigation. Flagging interests in and declining standards of Geography at Schools need an immediate probe and doctoring.

Whether the subject, wherever it is offered, is taught by teachers qualified to do it, needs to be looked into. Facts of place are linked with the map and map is almost absent in our school programme as it operates today. In the evolution of human civilization, facts of place have had an important role and it was not for nothing that orthodox teachers acclaimed Geography as a 'must' subject in schools.

Geography cannot be taught effectively as a part of social studies course. This is borne out by the teaching done in our schools. How so-ever sound may be the bases of the generalized course of social studies in our school programme it does not seem to have the disciplinary value which is associated with the independent subject of Geography, History etc. I believe that the mental discipline brought about at the school stage is bound to give a better foundation for specialization at the university stage.

The generalized courses can have meaning when they are imaginatively taught or else the cultural environment of the school and children is so rich that it can compensate for the loss—of the lack of imaginative teaching. Unfortunately we lack in both of the elements and, therefore, every attempt to introduce generalized and diluted courses in our school programme is destined to yield no fruit.

The present generation of teachers is conditioned to the teaching of the traditional subjects and with a little effort they are capable of doing excellent work in these subject areas. It is too much to expect a revolution in the school programme by substituting well established courses by new ones.

The present emergency demands that our students develop knowledge and understanding of India as a geographical entity. Geography is capable of developing sentiments for the frontiers, natural resources and human endeavour upon them.

THE TEACHER

Despite all the development in the knowledge through gadgets and audio-visual aids the teacher in our country continues to be the hub of all educational activities in the class room. He may not be worshipped as the 'Guru' of the yore but his importance as a dispenser of knowledge and skills in the various subjects that he teaches cannot be minimized.

Therefore, it is necessary to reflect upon his technical equipment that is offered to him at the training colleges.

In connection with a separate study on the subject it has been found that out of forty Secondary Teachers Training Colleges twenty three do not have on their staff adequately qualified methods master in Geography.

Normally a teacher educator should have a second class Master's Degree in Geography, Diploma or Degree in education, and about three years of experience of teaching Geography in the Secondary classes. Even where teacher educators are adequately qualified they do not have the background of working in Secondary Schools.

It is also revealing that the staff of the training colleges situated in small mofussil towns do not get opportunities to enliven their knowledge either of the subject or of the technique of its teaching.

Yet another inhibiting factor is that the methodology of teaching a particular school subject at the secondary Teachers Training level does not admit of higher vocational opportunities. The result is that the method master of Geography tends to devote his energies and time to the acquirement of knowledge and skills in fields which offer higher vocational opportunities. Thus the discipline of Geography and its teaching suffers. The same will, more or less, be true of other school subjects.

The admission requirements for specialisation in the teaching of Geography are very poor in the Training Colleges. Even those who offer Geography for High School Examination, are eligible for specialization in

the Subject, although the minimum academic qualification for a school teacher is a University Degree with Geography as a subject.

Ill equipped teacher educators and underqualified teachers of Geography constitute a major cause for the declining value of Geography at school stage.

METHODS OF TEACHING

The subject of Geography is learnt out-doors. There is evidence to show that geographical excursion at Training Colleges is a rare phenomenon. Some Institutions do send party of pupil-teachers on educational excursions. They are more a pleasure trip and hardly educational. Geographical excursion demands careful planning which may involve mapwork, observation of physical phenomenon and landscape. Post excursion report and laboratory work to analyse the data collected and arrive at conclusions are a must in an geographical excursion. These are ideals which need to be made real if the future in-service teachers have to revive the subject of Geography at Schools.

The picture is dismal and yet there is hope for improvement. As an immediate measure following suggestions are offered :—

(1) Refresher courses may be organised for the Methods masters of Geography of all the Training Colleges at the NIE. Initially the programme may cover the qualified teachers in a batch of ten who may be given orientation courses. Subsequently with the help of two/three lecturers of teaching geography the courses may be organised for the benefit of the method masters who are not adequately qualified.

Of the forty Training Colleges for which data is available only two prescribe content courses in Geography at the B.T./B.Ed. level. They are Govt. Training College, Jullundur (Punjab) and Education Deptt. of the University of Gorakhpur (U. P.). Inclusion of content knowledge in the methods course is highly desirable for two reasons (i) Most of students offering specialization in the teaching of geography do not have formal academic grounding in the subject. Their inclination towards geography is, in effect, adequate qualification to let them in for specialisation in the teaching of Geography. These pre-service teachers of Geography need be given sufficient knowledge of the subject to make them competent to impart instructions in Geography to High School Classes. (ii) Even those who know Geography, having offered it for the Degree course need reorientation particularly in the various skills associated with the subject.

OBJECTIVES AND GOALS

At the All India meeting of the teachers of Geography of the Training Colleges held at the CIE, Delhi in 1962 a syllabus was evolved.

The Seminar worked out the following objectives of teaching Geography at the Secondary teacher's Training level :

1. It should develop the understanding of the aims and objectives of the teaching of Geography at the various school levels.
2. It should enable the teacher to establish relationship of geography with other school subjects.
3. It should provide for knowledge about the use of the geographical aids *i.e.* (to develop the skill of using, preparing and manipulation of geographical aids).
4. It should help the understanding of various concepts of Geography.
5. It should initiate pupil teachers to the methodology of teaching of geography.
6. It should develop the competence to interpret the present socio-economic and other related problems in the geographical perspective.
7. It should develop the capacity to organize department of Geography in schools and Intermediate colleges.
8. It should provide for the basic skills of applied Geography.
9. It should promote the geographic sense.
10. It should provide for opportunities of observation, description and interpretation of local environment—physical and cultural and ultimately their inter-relationships.

PROPOSED SYLLABUS

Draft Syllabus for B. Ed. Course in Geography :

1. Nature, scope and subject matter of Geography, emerging concepts and trends in Geography.

- (i) Geography as a description of the earth.
- (ii) Geography as a study of natural phenomenon and their effect on man.
- (iii) Geography as a study of Landscape—physical and cultural.
- (iv) Geography as a study of areal differences.
- (v) Geography as a study of spatial relationships.
- (vi) Geography as a unifying and integrating discipline.

2. A brief history of the teaching of geography in India and abroad.

3. Aims and objectives of teaching Geography in schools and colleges, place of geography in the school curriculum.

Geography as a means :

- (i) to understand, describe and interpret man's immediate and remote environments.
 - (ii) to develop a sense of genuine local patriotism.
 - (iii) to develop broad mindedness, and sense of human brotherhood and international understanding.
 - (iv) to understand the inter-relationships among different subjects and disciplines.
 - (v) to develop the power of reasoning.
 - (vi) to develop the geographic sense.
 - (vii) to educate the students to establish relationship between geographical knowledge and cultural background.
4. Correlation of Geography with other school subjects : -
A geographical perspective of social sciences and natural sciences.
 5. A detailed study of various methods of teaching geography such as :—
 - (i) Regional Method, (ii) Comparative Methods,
 - (iii) Observational Method, (iv) Story telling Method,
 - (v) Project Method, (vi) Laboratory Method.
 6. A study and analysis of the principles of framing curriculum in Geography for (i) Primary School, (ii) Middle School and (iii) Higher Secondary Classes, Preparation of a scheme of study in geography for the above classes.
 7. Local Geography—its meaning, significance and its use as a method of study.
 8. Regional Geography—its meaning and significance ; concept of regionalism.
 9. Material aids in the teaching of geography.
 10. Maps and diagrams—their value in the teaching of geography, types of maps, their use and techniques for preparation.
 11. Organisation of (a) Excursions, (b) Geographic Club, (c) Geography Room (d) Geography Museum, (e) Geography Laboratory. a study in the underlying principles, characteristics, equipment and value.
 12. The Geography Teacher—his qualities and outlook on training and education.

13. Text-books—Characteristics and criteria for preparation and selection of text books for different levels.

14. Evaluation and measurement in the teaching of geography.

15. Observation and recording of weather phenomena.

16. Practical work in Geography : —

(a) each pupil-teacher should conduct and prepare a brief report on any one of the following :—

(i) Socio-Economic survey of a village.

(ii) Land-utilization survey of a village.

(iii) Traffic survey of a town.

(iv) Geographical description of a place.

(b) Performance of class room experiments such as :—

(i) Time and longitude.

(ii) Altitude of the sun at a place.

(iii) Latitude of a place.

(iv) Expansion and contraction of air.

(v) Evaporation and condensation of water.

(vi) Ocean currents.

(vii) Cold wind replacing warm wind.

(viii) To find out geographical north.

(ix) To contour the school play-ground.

(c) Participation in Seminars and writing of reports. Each student is required to participate in at least five seminars on varied aspects of geography and submit reports.

(d) Representation of geographical situations through maps and diagrams. Students are required to prepare 20 such exercises in the form of an album.

(e) Preparation of pupil-teacher—Atlas. Each student is expected to collect prepare and keep a record of typical maps and diagrams in the form of an Atlas.

(f) Preparation of geographical exercises and question-naires for the school classes.

(g) Preparation of objective tests in geography.

(h) Lesson-planning—each pupil teacher is required to give at least 25 lessons as under :—

(i) Lessons on physical geography :	5
(ii) Lessons on Human geography :	5
(iii) Lessons on Regional geography :	5
(iv) Lessons on Historical geography :	2

- (v) Lessons on Practical geography : 8 (Mathematical, Mapdrawing, observation, etc.)

Note: The Lecturer/Supervisor concerned may change the division of Lessons according to situation.

- (i) Specimen collection for the Geography museum.
17. Analysis of the following in Geographical perspective :
- (a) National Integration
 - (b) Socialistic Pattern of Society.
 - (c) National Planning.

A look at the above syllabus highlights the modern concept that a broad-based curriculum, integrating theory and practical work, is essential at the teacher-training level. Till some radical changes take place in the entire programme of teacher-education, piece-meal reforms in narrow areas often contradict and cancel out the effects worked for. Hence a whole scheme, oriented to the new approaches and concepts, is speedily necessary to effect any worthwhile progress in education.

CHAPTER XV PROBLEMS OF TRAINING COLLEGES

(V.S. Mathur)

[THAT our Training Colleges needs all round improvement cannot be denied any longer. In the present article Principal Mathur has suggested many changes, revolutionary as well as moderate. Some of the suggestions can be implemented forthwith. Some of the main suggestions made by Mr. Mathur are that theory side should be broad-based having more library reading and discussion. He has further emphasised that we should have more time for practice of teaching and co-curricular activities. He has also suggested some sort of self-assessment and greater dependence on Internal Assessment.]

(The University Commission as well as the Secondary Education Committee appointed by the Government of India sometime back have unanimously remarked that the training given in our Training Colleges needs improvement. They have very emphatically suggested that immediate attention may be paid to the remodelling of the training procedures in our institutions.) As a result of these suggestions many universities have already started paying attention to the problem of teacher-education in right earnest. The Bangalore Seminar of Principals of Training Colleges and the Coimbatore Seminar of Principals of Basic Training Colleges both discussed the teacher-training programme extensively. (It, however, remains to be seen how far the universities react to the same.

The entire problem of teacher-education may be viewed from the following points of view and it is my intention to say a few words about each :

- (1) Recruitment of candidates to the Training Colleges and to the teaching profession.
- (2) Providing the requisite environment by means of seminars, workshops, extension lectures, visits to schools, library work, etc.
- (3) Improvement in the mode of evaluation.

In our State, teachers are recruited only after they have undergone training for B.T. or B.Ed. (The Training Colleges in their own turn have

no hard or fast rules or any scientific criteria for admissions which are done usually in a haphazard manner. In many cases there is no question of selection at all because on account of the large number of Training Colleges, the number of seats available is more than applicants seeking admissions. There is no age-limit and the only qualification that is adhered to is a 'pass' at the B.A. or B.Sc. and sometimes even those who have yet to qualify are admitted provisionally. The situation may be viewed against the background that the number of posts falling vacant in schools every year is very small and quite a large number of trained graduates either have to remain unemployed for some time or to migrate to other States and even to other countries like East Africa for employment.

In good colleges where there is a rush for admission there is also a rush of recommendations and some undeserving candidates have to be accommodated while quite a few deserving ones are left out. It is common knowledge that the stuff we get in the Training Colleges and in the teaching profession at present is far from satisfactory and it is idle to expect efficient education from such teachers of doubtful ability.

There is, therefore, need for steps to improve the quality of the recruits as well as to so restrict admissions to Training Colleges that there is no unemployment amongst trained teachers.

This will naturally mean that a number of Training Colleges must go down and we should gradually move towards complete nationalisation of teacher-education as is obtained in some States like Madhya Pradesh. A second step in this direction may be to allow admissions only to those persons who have already got jobs. This will naturally mean that the appointment rules of the Government and other institutions will have to be changed and teachers selected from amongst fresh graduates. These newly recruited teachers may then be sent to the Training Colleges for training and given some sort of stipend. This step, I am quite sure, will certainly improve the quality of the recruit and we may get some good graduates for the profession. This will also solve the problem of unemployment amongst double graduates.)

Another suggestion that I would like to make about this problem is the introduction of Education as an optional subject at the Intermediate and the Degree stages and gradually we can restrict admission to the teaching profession to only those persons who take Education in their Intermediate and Degree courses. When this stage comes, a student will do most of his theory during these four years and the fifth year at the B.T. or B.Ed. stage may be devoted for more practical work.

I have already made these two suggestions to the Vice-Chancellor who has referred the matter to the Educational Faculty but unfortunately it has not been possible for the Faculty to discuss this problem so far on account of want of time.

In some places in our country plans are being considered for having Colleges of Education with concentrated long-term teacher training-cum-content courses after Matriculation or the Higher Secondary. They produce the examples of some American institutions in their support. In the Punjab, the newly-started Kurukshetra University are also running one such College on American lines. They expect a student to decide about his professional preferences after matriculation. I can only say that they are seeking to put too much reliance on our matriculates especially when there is no proper vocational guidance forthcoming in this direction; and I do not know how we can persuade a boy to get specialist training in Education when we are not in a position to assure him of a job and a good grade. An engineer or a doctor can always start private practice and very often earn much more than his counterparts in private or Government service. Are we thinking of encouraging our so trained teachers to start such private practice in Education also and start the so-called teaching shops in ever-increasing numbers? I would only advice caution to these enthusiasts. We cannot transplant any plan completely to an alien soil.

I know that my suggestions will remain for sometime purely of academic interest but I shall be gratified if some fresh thinking is started on this problem.

The Radhakrishnan Commission very rightly remarked that the practical side of teacher-training is not being given its due share. If we at the conditions prevailing in many universities we will find that in the look final examinations only about 1/5th of the total marks are assigned to practical work, with the result that naturally this side of training gets only 1/5 attention of the staff and students. The result is the proverbial gap between 'theory' and 'practice'. Much good in education depends on "How the teacher does his work", What methods of explanation he uses" and "How he organises his teaching" so that it may result in creating a healthy, wholesome and useful 'learning atmosphere'. The curriculum may be excellent, the philosophy may be superb, the administration may be ideal, and the organisation may be perfect but it will all be ineffective and unserviceable and out of gear unless the teacher has learnt to employ methods and aids and the devices in the actual class-room situation. This should be the ultimate criterion of any good teacher-training course and must be given added weightage.

No doubt, some theoretical background is always essential for good teaching, but, efficiency in theory at present has absolutely no connection with efficiency in practice. It always happens that a person getting a third class in practice gets a first class in theory and *vice versa*. Further, the practical training is given in very unreal conditions. Much that a trainee does in connection with a practice lesson in a training college is not possible to do in actual schools, where time-tables are crowded and equipment scarce. Further, the present training does not include much that a teacher has to do besides teaching; and that certainly is no unimportant part of his actual work. I would, therefore, suggest that a trainee should be completely 'deputed' to a school for three months and should be considered as an ordinary member of the staff, sharing completely the burden of the school organisation with other colleagues.

Besides class teaching, he should be given opportunities to watch some good lessons given by the staff of the college, as well as by some good local teachers and head teachers. Such experience, I feel, should be quite fruitful. And if the reports about the teacher's work during this period are collected honestly and fully, the importance of the final examination in practical skill in teaching is automatically reduced to zero.

On the theory side much overcrowding of the syllabus could be done away with and its place taken by more work in the library, seminars and tutorials, participation in debates and the like. Opportunities are to be given for stimulating students' imagination and powers of judgment and criticism. The syllabus, besides including some traditional subjects like elements of educational psychology, principles and methods of teaching and problems of school-organisation should also include a comparative survey of educational thought in some of the more advanced communities, as well as an acquaintance with the latest developments in Indian education like social education, basic and pre-basic education, etc. A working knowledge of the more common audio-visual aids is also very essential, besides some training in arts and crafts. It will be a sad commentary on our educational standards if a high school teacher does not know anything about an epidiascope or about the making of a dry model. In my college at Chandigarh, we have introduced three new features although they do not form part of the examination. They are: (1) a full ten-day course in Audio-Visual Aids, (2) Workshops on Evaluation in various teaching subjects and (3) an Annual Educational Conference of students when they discuss some of the burning topics in Indian education among themselves and pass resolutions and make recommendations like any other Educational Conference.

Examinations at the end of a professional course will serve no useful purpose if the year's work and progress is not taken into consideration. Drastic though it may sound, I would like to suggest that there is no great need for having full dress final examinations in teacher-training institutions. Results could be safely declared on the basis of year's work and progress. If a person has done well in most of his lessons, if he has made good use of the library, if his essays have shown a grasp of facts as well as originality of expression and imagination, if he has taken part in debates and discussions, if he has seen some modern methods in actual practice, if, in short, he has taken full advantage of the facilities available in a good training college, his training is complete and the result at the formal University examination is going to make no difference to his ability as a teacher. So why have it at all?

There is, however, one point in this regard that I would like to mention. For the B.Ed. (Basic) Degree we introduced 50% Internal Assessment. The result was that individual training colleges vied with one another in giving higher marks to their candidates so much so that the External and Internal awards had no correlation whatsoever. This was an alarming situation and, by and by, checks and counter-checks have been introduced, with the result that to-day the Internal award has been reduced at best to the position of a qualifying condition and does not count towards merit. Now this is very strange phenomenon. On the one hand, educationists advocate more and more internal assessment, and, on the other hand, when this is implemented, it is abused.

Under the circumstances, I would like to make a revolutionary suggestion that individual training colleges be authorised to award their own qualifications based entirely on their own assessment. The University may prescribe qualifications, strength of staff, quantum of equipment, furniture, etc., and leave the rest to the individual colleges. The employers will have to make their own selection and institutions will naturally be anxious to raise the standard of their professional training so that their students may be able to stand in the market. Inefficient institutions will soon have to close their doors because of poor admissions. This will indeed be a very bold step but if we cannot think of doing it, we should not talk of Internal Assessment, and revert solely to the external examination system. I can only visualize good internal assessment on an institutional basis.

I would also advocate that teachers-in-training be also given an opportunity to assess their own work and progress. At the Chandigarh college, we prepared a self-assessment questionnaire which we use for

assessing community activities carrying two hundred marks in our evaluation scheme. This questionnaire was given to the candidate at the time of admissions and all the points are fully explained to him for his future guidance. The same was filled at the time of the final examination and the entries duly scrutinised by the tutors. We tried to base our assessment of community activities mainly on this questionnaire and it is our experience that it regulates to some extent the co-curricular work of the students in our institution. I have adopted the same card at Patiala which place I joined a few months back.

CHAPTER -XVI TEACHERS OF BIOLOGICAL SCIENCE

(W.A. Frederick Hopper)

[ALTHOUGH Science and Science teaching is gathering momentum with industrialisation and emergency situation, the "Biological Sciences" form the "Cinderella" of the family. The laboratory, equipment, specimens and "subjects", are all conspicuous by their absence not only in secondary Schools, but even in the training colleges. Mr. W.A. Frederick Hopper, of Meston Training college, Madras, treats in great detail the defects as they obtain under the present system, the biology teachers as they come prepared and unprepared—, the training which defeats the purposes of training, by following the very methods that they denounce,—all the common deficiencies attending our training college programme, with which we are only too familiar and do so little to eradicate. The second part of the article gives practical suggestions for improvement and modifications which would go a long way in moulding the scheme a bit nearer to the the ideals and goals we have set up for education as a whole and for Biology in particular.]

INTRODUCTION

Biology at the Secondary level¹ is generally taught by teachers who possess a degree in Biological Science together with a degree or diploma in Education. The former is obtained after pursuing a course at a University department or college and the latter also by a theoretical and practical professional course at the university or a teachers training college.

To be a better teacher in the secondary school these two distinct stages are of equal importance.

(i) subject matter competency acquired during the basic degree course.

¹ Biology is taught as a subject or as a separate part of General Science only in the secondary level i.e., in the Higher standards of the Secondary school. Elementary Science is taught in the lower standards and in almost all schools this responsibility rests with the Secondary grade trained teacher.

(ii) professional training received during the training course.

In my opinion, 'preparation' commences right from the entry into the university. "Teacher Education should be thought of as continuous from its inception throughout the life of the teacher"². "This is particularly important for the Science teacher because of the rapid strides being made in Scientific knowledge and the technique used in laboratory work ; likewise new and better apparatus and material for carrying out experiments are being discovered. This contact can best be made during refresher courses for science teachers, held at universities and at training colleges"³.

PART I

CRITICAL EVALUATION OF PRESENT PRACTICE

To view as a whole the present situation which is so varied from place to place it is studied under the following main and sub-heads.

THE POTENTIAL BIOLOGY TEACHER (P.B.T.)

He is one who has entered the three year degree course offering Biological Science subjects after the Higher Secondary course or the Pre-university course and is going to be a teacher one day.

There are two categories :—

- (i) The Prepared Potential Biology Teacher who knows that he is going to be a secondary school teacher.
- (ii) The unprepared Potential Biology Teacher who does not know that he is going to be a secondary school teacher.

Unfortunately, majority⁴ of the Potential Biology Teachers belong to the second category. This person, by force of circumstances, which may even be the case of being found misfit in a job gains admission to the training college and finally ends up as a teacher of Biology.

PREPARED POTENTIAL BIOLOGY TEACHER

He is markedly different from his counterpart in developing the following behaviors with a view to use the same later in teaching.

- (i) He acquires basic and advanced theoretical knowledge irrespective of their importance on their examination point of view.

2 The Forty-sixth Year Book of the National Society for the study of Education Part I Science Education in American Schools 1947 p. 273.

3 Decker, D.E.T., the Training of Teachers for Science Training at the Secondary level, Education Abstracts. Training of Science Teachers for Secondary Schools UNESCO Vol. XIII. No. 4. 1961 p 7.

4 Questioning the teacher-trainees at the beginning of the Academic Year 1962-63 in my college reveals that only 5% of them have decided to be teachers of Biology when they were in the basic degree course.

- (ii) He develops mastery over many of the practical skills involved in the following :
 - (a) Experimenting with living and dead plants and animals
 - (b) Manipulating apparatuses in Biology
 - (c) Observing phenomena in natural and controlled conditions
 - (d) Recording, Analysing, and interpreting data gathered
 - (e) Drawing different kinds of diagrams to depict the whole as well as the parts.
 - (f) Dissecting and displaying plants and animals
 - (g) Microtechnique
- (iii) He gains useful experiences in the actual maintenance of the following :
 - (a) Herbarium
 - (b) Terrarium
 - (c) Aquarium
 - (d) Museum
 - (e) Aviary
 - (f) Garden

UNPREPARED POTENTIAL BIOLOGY TEACHER

He has not made a systematic study of the theoretical and practical aspects of Biology and therefore the result is a Text-Book teacher in the Secondary school. I have come across 'Readers in Biology'.⁵ Nearing the examination especially, the teacher dictates question and answers and coaches the pupils very efficiently. This teacher cannot be taken to task as he has '75-80% passes in the S.S.L.C. to his credit.

AS A TEACHER-TRAINEE

The course provided in the Training College is for one academic year and is devoted entirely for professional studies since the teacher-trainee has already completed three year of 'intensive study' of the subject which he intends to teach.

The initial adjustment to the three essential courses—General Education course, Methodology course and Teaching Practice course present difficulties as seen from examples given below.

The teacher-trainee has been 'told' that Educational Psychology is the only subject to be 'afraid of' in the Training College and that he can 'manage' the other subjects. This is the initial attitude built in to the fresh entrant.

5 These teachers who read from printed pages of a text book seated comfortable.

It is but natural for a Biology specialist to feel fish out of water in the atmosphere of the Training College.

(a) In the science degree course the different aspects of Botany and Zoology are presented to him in a definite manner under well established fields, whereas in the Training Course everything seems to be in a confused state.

(b) The teacher-trainee who is never used to terms like 'Aims and objectives' is perplexed when a lecture (probably opening lecture) is given on that in teaching of Natural Science.

(c) The practicals in the liberal arts college is only concerned with experimenting and dealing with dead and living plants and animals. In the training college, practicals involve teaching young children bubbling with activity. What a difference !

TEACHER OF TEACHERS

The lecturer or Professor in Biology is the key person responsible for training the teachers of Biological Science. Generally, he possesses atleast a second class Master's degree in Biology, a degree or diploma in Education and teaching experience.

What happens to him ?

(i) In the Training College he begins to forget his subject ! This may look strange but it is a fact. When he begins to forget the subject⁶, the problem of keeping abreast with recent discoveries in Biology does not arise at all !

(ii) Because of the operation of the 'law of Disuse', the practical skills he had learnt fast disappear.

(iii) Life in the Training College after a few years becomes so routinised that he begins 'to exist' and not to live in the world of Science Education.

The Teacher-Educator in Biology realises what is happening to him sooner or later. His friend in the liberal Arts college is progressing and is benefiting monitorily. "To my mind the single most important factor responsible for the poor quality of teacher educators—and, therefore, of teacher education—is the miserably poor salaries that are offered in most teachers' colleges, in some of which they are on a par with the grade of salaries of freshly trained graduate teachers. Atleast, they are on a par with the salaries of lecturers in liberal arts colleges who are not required to have any professional preparation nor any teaching experi-

⁶ The teacher-trainee fresh from the science degree course rates the Training College lecturer only with reference to his depth in Biology.

ence". Because of this, many able and highly qualified Teacher-Educators in Science leave for better and more attractive positions elsewhere in other institutions.

What does he do ?

He has an example—His Biology lecturer in the Training College. He has a ready made plan-- the plan of the B. Ed., degree course of which he was a student. He follows it with or without modifications !

What else can he do ?

There are no published works on 'Preparation of Teachers of Biological Science' suitable to our conditions. How much of chance is there for an enthusiastic junior Lecturer to be deputed to attend conferences in our country to gain experiences from others in the same field ?

When the chances inside our country is so meagre; how can he go abroad ?⁷. How many Teacher-Educators in Biology have done post-graduate research into the problems in secondary Education ?

THEORETICAL WORK

Under the pressure of the External Examination, the teacher-trainee is required to study and remember the area of knowledge prescribed by the university in the form of a syllabus. "It is common, to find even trained teachers who are not enthusiastic supporters of teacher-education. All this is so because of the highly theoretical and unrealistic nature of training provided in the vast majority of our teachers' colleges in some of which even to this day the teachers resort to dictations of notes at aimed assisting the students to pass the examination"⁸. I would like to add here that a teacher-Educator in Biology *dictated* notes to his trainees as follows: "Do not *dictate* notes in Biology to your pupils. The objectives of teaching Biology will be defeated".

TEXT BOOKS

There are a few books on Teaching General Science in Secondary schools. Many of them are written by authors from abroad, some for tropical school and others for their own. Local authors do not come forward to write books in this field as it is not an economical proposition.

7 Pires, Edward A., Problem of Teacher Training The Education Quarterly Vol. XI, No. 41 March 1959 p. 44.

8 In England there is so much of movement within and without The Science Masters Association and Area Training organisations provide facilities for teachers and teacher-Educators to come together. In 1961-62 about Eighty Teacher-Educators and Teacher-Trainees from Oxford, Cambridge and London joined the comparative Education tour of France. The specialists are given opportunities to pursue studies and observation in their own fields of interest.

9 Pires, Edward A., Ibid p. 45.

However, some teacher-Educators write 'cyclostyled notes' on Methods of Teaching Biology and sell it in camera.

METHODOLOGY COURSE

During the first short term the time is spent among on general considerations like :

- (a) Aims and objectives of teaching Natural Science in Secondary Schools
- (b) History of Science Teaching
- (c) Correlation of Natural Science with other subjects in the curriculum.

The trainees may spend a week in schools for observation.

The second term is a busy term. Different methods like Lecture Method, Demonstration Method, Project Method, Heuristic Method, Laboratory Method, etc., are taught as applicable to the Teaching of Natural Science. The trainees also go for Block teaching practice during this term. The 'portions' are 'covered' only thro' lectures purely in a theoretical manner. The trainees are expected to translate what they have learnt theoretically in a practical manner in the class room which seldom happen in other professions. To add to all these a senior lecturer may give a talk on "lesson plan and writing notes of lesson in subjects" !

During the Third term the most important methods and aids appropriate to the teaching of Biology are considered. For e.g. The place of audio-visual aids in teaching Natural Science, the role of school garden, Aquarium, Terrarium, Museum in teaching Natural Science, Maintenance of Nature Calender, Nature Diary; study of syllabus in Natural Science; construction of achievement tests are mainly through 'slow paced' lectures. Even the tutorials' convert themselves into mniniature lecture classes.

PRACTICAL WORK

During the training period, the trainees are required to do practical work which can be classified as :

- (i) Making of charts, models and apparatuses used as teaching aids.
- (ii) Recording Experiments, field trips and other practical activities.
- (iii) Collecting and preserving specimens.

Firstly, as there is over-emphasis on theory, practical work is neglected. Secondly, there is not enough time to pay attention to all the aspects of practical work. Thirdly, very few training colleges possess even a poorly equipped laboratory. However, practical work is 'done'

and when the Board of Examiners visit, the room is colourful with all sorts of teaching aids and records. How did they appear? It is a long story. To cut it short, it can be said that there is more of inheritance and less of originality and genuineness.

TEACHING PRACTICE

As in other subjects, the teacher-trainee is apprenticed to a teacher of Natural Science in a secondary school. He does a period of observation followed by a period of actual teaching which is generally Block Practice.

Observation period—Is it waste of time?

The teacher-trainee 'observes' the required number of lessons a day purely for submitting the 'Teaching practice Diary' to get attendance.

Teaching practice period—Is it leisure time?

"The supervisors generally regard the Practice teaching programme as the period of their leisure and rest and visit the schools only when it suits them"¹⁰. The teacher and the trainee also join the teacher-educator. Almost all the lessons of the teacher are 'taken' by the trainees and he simply 'sits'¹¹ at the back of the class. The trainee with great difficulty gets a class for the whole day. (During my time, I got one science teaching class in a week.)

ACTUAL TEACHING

There is scope only for 'class teaching' in Biology and this finds favour with most of the teachers as it is the easiest to arrange and supervise.

If the trainee wants to try out 'group techniques' or 'Laboratory techniques' in teaching Natural Science in the class-room then the timetable, class room organisation, equipment and even the furniture stand in the way. In most cases no encouragement is given and the pupil's mind is also not receptive to the dynamic method of teaching. When these methods are so difficult to implement what about field trips, visits, etc.,?

IN-SERVICE PROGRAMME

"However excellent the programme of teacher-training may be it does not by itself produce an excellent teacher. The Teacher training institution should accept its responsibility for assisting in this

10 Chaurasia G., Practical Work in Training Colleges. The Education quarterly Vol. XI No. 41 March 1959 p. 12.

11 He knows perfectly that his grading is purely for statistical purposes and the final grading rests only with the subject lecturer.

inservice stage of teacher-training"¹². At present the Department of Extension Services Programmes attached to selected Training Colleges are invested with this responsibility. In Science; it is to help the teachers.

- (i) to keep abreast of changes in subject matter.
- (ii) to learn new skills and techniques in teaching science
- (iii) to strive to indicate both content and Methodology appropriate to the changing needs of the present society.

PRACTICAL SITUATION

If the programme is to be successful and if there should be continuous demand from the teachers, the key person is the Resource person. If a coordinator is not a specialist in Biology he is faced with the problem of finding one. When he finds one, the Resource Person is not able to help during the working days owing to restrictions imposed by service conditions. The vacation is the natural answer. But how many Resource Persons are prepared to sacrifice a major or minor portion of his hard earned vacation ?

Many teachers in secondary schools in sub-urban and Rural areas have realised that what all that was denied to them is made readily available at their doors. The demand is so great that the Department of Extension Service programmes is not able to meet¹³. Whatever the short comings may be, the inservice programmes has greatly improved the competence of teachers of Science.

SUMMARY OF THE MAIN FINDINGS

Potential Biology Teacher

1. Very few Teachers in Biology decide to teach when they are studying in the Liberal Arts College.
2. The prepared Potential Biology Teacher acquires greater subject matter competence than his counterpart.
3. Transition from the Biology degree course to the Biology training course is difficult.

Teacher of Teachers

4. The Teacher-Educator forgets the subject matter both in Theory and Practical in Biology.
5. He perpetuates the good old mode of training of teachers due to various reasons.

12 Report of the Secondary Education Commission 1952-53. Ministry of Education Govt. of India. Publication No. 165 p 178.

13 Very recently 79 teachers of Science attended a 6 day Refresher course in content and Methodology in Arcot in Madras.³ There is clamour for more individual school level and group school level courses of a detailed nature.

6. He prepares the trainees for one rigid external examination in theory as that is the deciding factor.
7. Very few standard text books on teaching of Biology suited to Indian conditions are available for the teacher to refer.

Methodology course

8. There is over emphasis on theory.
9. The course is presented mostly through lectures which may even amount to mere dictation of notes.
10. Methods taught in Biology have no bearing to school situation.
11. The most important portions pertaining to teaching of Biology are rushed through in the last term.

Practical Work

12. There is not enough time to satisfactorily complete the practical work.
13. Very few Training Colleges possess well equipped Natural Science laboratories.
14. The teaching aids either in a copied form or even in an original form are secured from past students and presented to concerned authorities.

Teaching Practice

15. The observation period is a waste of time as the purpose is not realised.
16. The Teacher-trainee generally with difficulty gets only one period to teach Biology for a day.
17. Only 'class teaching' is favoured in Biology.
18. Teaching practice is a period of leisure for the Teacher-educator, Teacher-and Teacher-trainee.

Inservice Programmes

19. At present the Department of Extension Service Programmes under the National Council of Educational Research and Training attached to selected Training Colleges perform this work.
20. It is difficult to get the services of a Biology specialist due to various reasons.
21. The demand for these programmes is very great from teachers but the department is not able to cope up with it.

PART II

SUGGESTIONS FOR IMPROVEMENT

The first problem pointed out in the previous discussion is that there are prepared Potential Biology Teachers and unprepared Potential Biology Teachers entering the Training College. This can only be solved by radically reforming the structure of teacher-Education in our country. "The integrated content-cum-Pedagogy course such as the U.S.A. or organised in at the Kurukshetra University seems to be the only answer and it is in this direction that our future experiments should be¹⁴. If the pupils with 'science talent' opting Biology as one of the subjects in the Higher secondary or Pre-university course and who also seem to possess the aptitude for teaching are chosen for this combined course, then competent teachers devoted to the profession could be produced. The problem of transition also does not arise in this fusion course.

In the present set up, smooth 'change over' can be effected by organising "content based discussion" and introducing the Methodology thoughtfully at appropriate points. Care should be taken not to mention technical terms denoting the different methods. For example, a discussion on "Food of plants and animals" could be initiated and directed to the study of "Photosynthesis" first and then induce the fresh-trainees to suggest methods to be employed 'to teach' the same as a lesson to pupils in the secondary school. Once the trainees are quite conversant with Matter and Method, then they are in a position to comprehend the theory involved in the Methodology course.

TEACHER EDUCATOR

(a) To attract the best and highly qualified personnel in Biological science to a training College and induce them to stay on in the profession, it will be necessary to offer extra remuneration as special pay.

(b) To improve them, it would be better to organise Seminars and conferences at the state and National levels during vacation to discuss problems in Science Education. Some of the important objectives are given below.

- (i) to discuss modern developments in Biology
- (ii) to become aware of and peruse latest books in content and methodology in Biology.

¹⁴ Doraiswamy S., Science in Secondary Schools. The Education Quarterly Vol. XIII. No. 49, 1961 p. 20.

(iii) to observe demonstration of improvised apparatus useful in teaching Biology.

(iv) to participant in the preparation of special teaching aids in Biology.

(c) Selected teacher-educators in Biology may be asked to write books useful for teachers of Biological Science.

(d) The Teacher-educator in Biology must be made the head of the Department of Biology in the Model school attached to the Training College and he should be encouraged.

(i) to teach in the school.

(ii) to conduct action research in Methodology in the school.

This will give opportunities for the Teacher-educator to keep close touch with problems at school.

(e) The Teacher-educator in Biology should be given facilities to work in the college laboratory. This will provide opportunities for experimentation and discovering effective techniques suitable for children in the secondary school.

(f) If he is not suitably qualified, he should be deputed for training in Museum technique and Micro-technique.

METHODOLOGY COURSE IN BIOLOGY

So long the present system of examination continues nothing can be done with the evil of too much theory and memorising the same for the external examination. However, few attempts can be made to improve the present situation.

1. The tutorial system practised in England is the best. The teacher-educator and the trainee work together and discuss together on selected topics in the lecturer's room at intervals. Formal lectures are in the form of 'guide posts' to enable the students to find source material in a topic under study.

2. The lectures on 'General Method' may be completed during the first term itself so that the subject lecturers may not repeat the same but spend the time usefully discussing the special methods applicable to the teaching of Biology during tutorial classes.

3. Finally, the Methodology course in Biology can be made effective only by amalgamating it with the scheme of practical work. Few examples are given below :

(a) The topic on 'Teaching aids in Natural Science' should be approached through the actual preparation of them.

(b) The topic on 'Study of Secondary School syllabus' should be actually carried out as done in an educational workshop.

(c) No amount of talking about the maintenance of Herbarium, Aquarium, Museum, Terrarium and school garden is going to yield any fruit in the training college. The trainees should organise themselves into Nature clubs responsible for the maintenance and study of the above and report periodically in the general class. This is a very common thing observable in other countries. In the Natural History Museum at South Kensington in London I saw a group of teacher-trainees making notes with sketches about the big blue whale. Another time I saw another group studying tropical ants reared in a hot house in the London Zoo.

TEACHING PRACTICE

There should be good preparation in the Training College itself for the purpose of (i) improving competency in subject matter (ii) improving competency in practical work.

The first may be accomplished if a detailed study of the secondary school Biology syllabus is undertaken wherein the following may be studied for each lesson unit.

- (a) The scope of the lesson unit
- (b) the appropriate methods to be used
- (c) the essential teaching aids required
- (d) the practical work involved in it
- (e) the test item to evaluate the lesson.

To improve the practical skill of the teacher-trainee I am of the opinion that all experimental demonstrations in Biology to the Secondary School Level must be set up in working conditions in the Training College and recorded under supervision.

Wherever feasible, the apparatuses should be improvised using inexpensive material.

ORGANISATION

Unless there is perfect cooperation between the training college and the practical school this cannot be a success.

1. *Period of observation*

Experienced and enthusiastic teacher of Biology in the secondary school should be requested to be in charge of the observation period so for the subject is concerned. After the observation of a lesson, the teacher-trainee and the teacher should be encouraged to discuss on equal terms. Observation does not mean merely to observe teaching lessons. The setting up of an experiment in the preparation room in the laboratory is a useful observation. Observation of pupils pursuing the science club activities is yet another useful one. Observing and making a detailed

study of the school laboratory is of immense value. Therefore 'observation' should be conceived in a wider connotation of the term to include the above and many more scientific activities.

2. *Period of teaching practice*

How to utilise the time beneficially to the teacher-trainee in Biology when he is in the practising school? Some suggestion are given below.

He may be assigned the task of teaching a class a day. He may be provided with a double period to enable him to conduct extensive practical work in one form or other.

Even for classes he is not going to teach he should be asked to set up demonstrations and devise further activity.

If the school has an Aquarium, Museum etc., the teacher-trainees must be given full responsibility for its maintenance in turns.

The sponsor for the Nature club for the teaching practice period should also be one of the trainees in rotation.

When the trainee is free for the entire session, field trips and visits must be arranged under the leadership of the trainee.

In short, in all programmes that come under 'Science Education' the teacher-trainees should have a part to play.

The teacher-educators should be in very close contact with his trainees during this period and should spend as long a time as possible with them. A fully residential training college provides much scope in this direction.

IN-SERVICE PROGRAMME

There are two ways of arranging this for the benefit of Teachers of Biology.

- (i) to assemble selected teachers at a university centre.
- (ii) to assemble selected teachers at a local school where there is good equipment for Biology.

This is possible only during long vacations and suitable Resource Persons are to be obtained.

In the first High level advanced type of inservice programme care must be taken to see that lectures are not too technical for them or beyond the comprehension of the secondary school teacher. For example when I gave a talk on "Pollination and Fertilisation" most of the participants have not even seen many of the examples they give out for special contrivances and adaptations for cross pollination. None of them in a group of Thirty have seen a pollen grain! Many gave out *Nymphaea* sp, *Nelumbium* Sp. as an example for a plant adapted for Hydrophily!

Biology as it involves Microscopic studies, it is better to arrange for individual and group school level workshops and Refresher courses limiting the number to a maximum of twelve.

CONCLUSION

I am aware of the complexity of the task involved in the 'preparation of teachers of Biological Science.' In this brief paper, the most important practices in vogue and problems are only outlined. Possible solutions are also indicated for a few. I hope that some of these will be discussed in the light of varied experiences by teacher-educators in Biology and practical solutions arrived at to suit the local conditions.

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CHAPTER XVII TEACHERS OF GENERAL SCIENCE

(D.S. Nigam)

[THE new Higher Secondary Schools have introduced "General Science" as a core-subject, for students of Humanities. It is causing many a sleepless night to quite a few principals, teachers and curriculum experts, to figure out what exactly was meant or is required. The teachers of teachers, who should pave the way for educational innovations are confused worse than ever, and often go the same way, taking no cognisance of the impending changes. Shri D.S. Nigam, of the Central Institute of Education, with true scientific bravery, discusses in this article, the drawbacks and possible outline of a scheme for preparation of teachers of General Science at secondary level.]

THE ROLE OF SCIENCE IN THE NEW CURRICULUM

The idea of general science has been very much with us for a long time. The Secondary Education Commission made a very powerful plea that general science be taught to all school going children. But, as yet, it remains a baffling idea for most educationists. As such, the schools are unable to do any justice to the concept and spirit of general science.

The curriculum makers have to bear most of the guilt in this connection. The general science owes its peculiar characteristics to the fact that it aims to provide maximum opportunity to every individual, to choose his own subject matter according to the needs and circumstances of his environment; and, to choose his own approach for its study. It is therefore, in the realm of curriculum construction that it makes the greatest demand on educationists. Curriculum makers have, therefore, to ask themselves whether their statement of the syllabi contains adequate directions and illustrations in the form of aims, objectives, behaviour patterns, etc., by which teachers, inspectors and others can compare and judge whether their own interpretation and development are in the desired direction.

Curriculum makers have also to go back and ask themselves whether their selection of subject matter has been in accordance with any principles which they have enunciated and whose relative importance they

have established; or, they have merely patched up some subject matter of physics, chemistry and biology and put it together to make it look different from the former.

Most of the curriculum makers have also never tried out their syllabi before prescribing them to the schools; and, neither do they demonstrate how the same could be implemented, nor do they actively participate in their present try-out process. The question therefore arises: 'Can most of the teachers be expected to do any real justice to general science, if the leaders, from whom they are drawing their cue, are themselves neither clear nor are able to practice the principles of general science?' There is no wonder therefore that we find the school teachers still thinking in terms of the disciplines of physics, chemistry and biology and teach general science topics in that way.

Curriculum makers have also not been able to suggest suitable evaluation programme. Formal external examination may be vitiating the real objectives of general science and may therefore be abandoned; but the alternative should not be 'no examination'. There should be a programme of evaluation based on day to day observation, examination of work products, cumulative records etc. Without evaluation there may be no motivation and little growth.

The training colleges also are not clear as to what the special methodology of teaching general science is and what type of training ought to be imparted to teachers under preparation for such purposes. Inspectors, consultants and other administrators who draw their inspiration from training colleges for guiding and assisting the teachers under their control, are also therefore unable to decide their own policies as well.

No University in India has so far drawn up a syllabus for the preparation of general science teachers, as different from that required for various other sciences, like chemistry, physics, biology etc. Out of many Universities in India only six or seven provide for specialization in teaching of general science as apart from teaching of physics, chemistry or biology etc. But really, even these Universities are not able to differentiate between the requirements of one from the other. They prescribe the same content under different phrases. One can easily find repetition of such topics under each head; History of science teaching in India, Aims and values of science teaching (cultural aim, utilitarian aims etc.), scientific method, (hypothesis, data collection etc.); Method of teaching (lectures, lecture-demonstration, Heuristic, project method, etc.)

Aids to the teaching of science (Text-books, laboratories, workshops museums, exhibits, films, etc.) And, if it is the same person teaching 'methods of teaching natural science, physical science and general science', to the same group, he has merely to repeat the same in different classrooms ; and every one finds it boring.

The following lines do not however attempt to clarify the techniques of curriculum making. Here, only the need of learning these techniques and practising them is stressed ; and it only gives reference to just one work in which this technique* has been illustrated. These lines, mainly, on the other hand, try to answer the question which agitates the minds of training colleges, namely the question about the programme for training of teachers for general science.

PROGRAMME FOR TRAINING OF TEACHERS OF GENERAL SCIENCE AS A PART OF THE B. ED. COURSE

N.B. 1. Most of the B. Ed courses of study in the country have the following pattern, or at least, for the purposes of these recommendations the following is taken to be a typical pattern.

I. General papers dealing with theory of education,

II. Educational psychology,

III. School organisation etc.

IV. Methods of teaching school subjects like teaching of mother tongue, maths science, history, geography (any two subjects to be taken.)

V. Some special aspects of education like 'co-curricular activities', 'audio-visual education', 'physical education', 'basic education' etc.

In the section, method of teaching science, generally, the following topics are included ; aims, values and place of teaching science in schools, curriculum organisation, method of teaching, laboratory, library and aids, evaluation etc.

2. In suggesting the following special programme for preparation of general science teachers it is envisaged that the section 'method of teaching science' will be taken by every teacher who wants to become a science teacher, no matter, a specialist of what branch ; while the programme suggested below, should be taken as one option under paper V.

*An effort to apply this method may be found in the pamphlet 'Newspaper Advertisements in the teaching of science', published by the Central Institute of Education, Delhi.

SYLLABUS FOR THE PAPER 'METHOD OF TEACHING GENERAL SCIENCE'

I. *Study of subject matter of general science*

Every student teacher should have a thorough study of secondary school level subject matter of physics, chemistry, and biology. Mastery of a book like 'Everyday Science' by Parson may be enough. A pupil teacher should score 80% or more, in an achievement test of secondary school level, based on the book. (This study of subject matter is necessary so long as we do not get graduates who have competence in all the major branches of science.) (25% weightage)

II. *Technique of curriculum construction* (15% weightage)III. *Treatment of the prescribed syllabus in general science* (This is necessary as the system of prescribed syllabus in general science will continue until teachers can develop their own programme.)A. *Listing Resources*

Every pupil teacher should undertake a project in which he (a) studies the entire syllabus of general science prescribed to be followed in his school, (b) lists and writes reviews of (i) reading material, (ii) available aids like films, filmstrips and community resources for every topic in the syllabus and (c) based on the above work, prepares his own teaching kit. (10% weightage)

B. *Organization into activities :*

Every pupil teacher should then prepare a plan of his entire teaching work in general science in the form of lists of activities with corresponding statements of objectives, behaviour patterns, aids, evaluating devices, time required etc. (10% weightage)

C. *Preparing evaluation tools* (10% weightage)IV. *Developing one's own curriculum (through actual teaching).*

Every pupil teacher should take up a teaching project in which he should develop his own general science course content with the cooperation of his pupils, according to their interest, aptitude, circumstances and resources and later evaluate their achievement. (He should take the prescribed syllabus, only as a general index of standard and scope). The technique of developing this syllabus may be the one adopted by Science Masters' Association, London; or, the one of developing a unit round a community problem; or, any other equivalent procedure for developing a project. (30% weightage).

CHAPTER XVIII TEACHERS OF SOCIAL STUDIES

(B. Ghosh)

[EQUALLY or even more puzzling than "General Science" is the new term, "Social Studies." The piecemeal teaching of History, Geography and Civics, still continue, though the nomenclature is changed to satisfy the syllabus-makers. Sri Bimal Ghosh, of the National Institute of Education, brings into true perspective the idea of "Social Studies" as distinct from the subject-areas we have so long been familiar with, and wrongly associate with, this new field. The misconcepts ranging round content and methodology of the new subject are innumerable and an entirely fresh, unbiased, unprejudiced, outlook of a social philosopher, who is able to see clearly beyond and above the traditional subject-boundaries, is the only hope. As yet, trial-and-error methods are followed in a very "quarter-hearted" way, to give a semblance of paying homage to this new idol which is presuming to claim our loyalty. In the teaching of "how to teach social studies," the training college lecturer has,—unlike in other subjects—not only to teach methodology, but even the course-content meant for the secondary school pupils. The trainee has to develop a broader vision and an absolutely different approach and attitude. He has to widen his range of reading and learn to re-structure items of knowledge gathered from various sources into a new "meaningful" whole. All this calls for a re-orientation, the implications of which are discussed below.]

A PUZZLE TO THE TEACHERS

Social Studies as a school subject is today in a state of confusion. There is hardly any agreement on either the scope or the content of the subject or its organization for classroom teaching. And that is so not only in India but in many countries in the world.

To many educators, Social Studies is in the nature of a fused subject, its component parts not discernible as such in the details of the content of the courses, where—to use a training college cliché—the organization of the subject-matter cuts across the boundaries of several recognized subjects. Its avowed aim is to impart an understanding of the

environment, and therefore the focus of its attention is the present. It professes to build up good intelligent citizens and to develop in pupils certain concepts and understandings, attitudes and appreciations, skills and abilities, and also some desirable patterns of behaviour.

The recognized fields of human knowledge whose boundaries it seeks to cut across are those that deal with different aspects of society and the physical and cultural environment, such as history, geography, politics, economics, sociology, anthropology, social psychology and such others. This drawing upon subject-disciplines does not, however, mean that patches from them are taught as such, but that the content drawn from different disciplinary areas is given a slant, a direction, which might not have been there if those disciplines were organized as separate and distinct school-subjects.

Social studies is also taken to mean a different thing, much more commonly than in the previous case. It becomes, in terms of the organization of courses, a convenient label under which the usual school subjects as History, Geography, Civics and Economics are brought together with distinct entities of their own. There is little or no attempt to 'fuse' the content, to discover a common thread that can bind these subjects together. Where Social Studies is so understood, it is not uncommon to find the different constituents of the subject being taught by different teachers, specialists in those branches. In such an arrangement, fusion of subject-matter is not what is aimed at.

This confused state of affairs makes it difficult to be precise in the matter of teacher-preparation. One must know what is being aimed at. Of course, in matters relating to education it is presumptuous to be dogmatic. It is not possible to issue a fiat to say what Social Studies ought to mean. Still, a time has come when some sort of an agreement by way of several general statements should be arrived at. The patterns may differ in details, but should be governed by some fundamental principles.

It is with this aim in view that the Department of Curriculum, Methods and Textbooks under the National Council of Educational Research and Training (till recently, known as the Central Bureau of Textbook Research) has undertaken a comprehensive project to see if it is possible, by general consensus of opinion, to come to a common general agreement on the nature of the subject, its organization and its status in the curriculum. The project has just been started and is expected in time to yield some positive results.

TEACHER PREPARATION

Though, however, it may not be possible to be precise till the conclusions of the project are available, it is certainly possible to speak generally of the preparation of teacher of Social Studies, its problems and the steps that may be taken to improve it. For, it is widely held that whatever the sense in which Social Studies is understood, the teaching of the subject is not, as they say, delivering the goods. Where pupils are taught the fused variety of the subject, they come to have a large number of disjointed facts, often incoherent and unrelated, without much real understanding of the society and the environment. When we come to the question of developing attitudes and appreciations or desirable patterns of behaviour, the less said the better. Where Social Studies is understood to mean a collection of several subjects under the name of Social Studies, the result is not very different. Pupils rarely develop an understanding of these subjects: they perhaps learn many more facts than in the other case, and much more disjointed as well.

Classroom teaching has therefore to keep this in view, and, of course, preparation of teachers, with which we are now primarily concerned. The preparation of teachers has to be considered from two aspects—preparation in content and preparation in methodology. Let us deal with these separately.

Preparation in content may be considered from two points of view: the needs of Social Studies as a fused subject and the needs of the different disciplines grouped under the common label.

When it is of the former variety, Social Studies demands of teachers not merely an acquaintance but also an understanding of the fields of knowledge from which its content is culled. But, such has so long been the organization of the curriculum in secondary colleges and in colleges and universities that subjects are taught in isolation with one another, as entirely independent disciplines with no common meeting points. Teachers of today are thus supposed to be specialists in particular subject-areas, disclaiming acquaintance with even cognate disciplines. The teacher of Geography shuns all references to History or Politics, for he has been taught to grow up in the belief that subject-disciplines are water-tight compartments. Naturally, it would be too much to expect of such teachers a competence—sometimes, even the willingness—satisfactorily to meet the demands of teaching a composite subject like Social Studies.

What is said above may be construed to mean that Social Studies is better taught when it is composed of distinct disciplines. That however

will be far from the actual position. While it is quite legitimate to expect that a teacher who has prosecuted studies in a subject at an advanced level will be able to handle it in a competent manner, things often turn out otherwise. Universities start specialization early, with the result that teachers who have specialized in very narrow fields within a discipline have to teach the subject in its entirety in school. The early specialization very often strikes at the root of a comprehensive and synoptic view of the whole field of the particular subject-matter. No wonder that such teachers should have greater sympathy for the fragment than for the whole. Never were they given an opportunity at a high level to undergo that study which goes to illumine the subject as a whole. Such a study is not only not encouraged but indirectly discouraged.

The example of a teacher of History will make it clear. No university in India teaches for its graduate and postgraduate studies the history of India as a whole. The Indian culture courses are diluted and too lop-sided to deserve consideration here. When he starts teaching, a teacher of History is therefore a specialist in particular periods of Indian History, British History, European History, World History and, also perhaps, Regional History. When he starts work in school, he is confronted with whole of Indian History, which he had studied last (unless he is one who chose History only for his M.A. Examination) at school. So long as his private studies are not comprehensive and deep enough, he cannot be expected to treat the whole field with a discerning insight.

So, what is to be done ? It is clear that things would not change overnight, and only a suggestion is made below for the consideration of university committees of courses. The suggestion has two facets, taking care the needs of both varieties of Social Studies courses so far envisaged for our schools.

FURTHER SUGGESTION

The suggestion is that serious attempts are to be made to convince universities of the necessity of instituting some specific courses for graduate studies, which would be meant primarily for teachers. These courses may not aim so much at depth as at width. Comprehensiveness should be their watch-word. They would widen the horizon of the prospective teacher, broaden his vision and create in him the ability to look at apparently unconnected bits of knowledge in a much wider prospective of the whole.

Examples will make the suggestion clear. If our schools decide to teach Social Studies of the fused variety, what a boon it would be if

universities start courses in Advanced Social Studies, drawing upon the fields of the different social sciences for the content of the course ! Such a course can give the prospective teacher a clear understanding, and a through grasp, of what constitutes the environment and attach new meaning and significance of what are apt to remain simply 'inert ideas' without the necessary illumination.

It may not be out of place to refer here to the purpose of education, as the philosopher Hocking expressed it. Education, he said, should aim not only at creating the type but also at providing for growth beyond the type. Education thus not merely passes down the culture of the people from generation to generation, but creates as well the urge and the ability to improve upon that culture. The Greek civic oath said : 'Thus in all ways we will transmit the city not only not less, but greater, better and more beautiful than it was transmitted to us.' This is what every generation also should say in respect of the society they live in.

This urge to leave things better and more beautiful can only come when the understanding of the problems is both deep and sympathetic, lit up by studies from cognate fields and explained by interaction of one branch of knowledge with another. A mere narrow study of a narrow field, started before the whole has not been properly conceived, can hardly serve the purpose that Education sets before it.

What is said of fused Social Studies is equally true when we consider the teaching of the disciplines in schools. As has been pointed out already, specialization now starts too early. General Education courses which seek to remedy some of the defects of specialization are often too superficial. The History courses in the universities very well illustrate the point. Nowhere after his secondary school does a student of History get the opportunity of viewing the whole of Indian History. He studies in very great detail provincial history and special periods of Indian and British and European and World History. How does this study of special periods alone acquaint him with the trends of Indian History through the ages, its development from period to period, its transition from age to age ? Would we not agree that a teacher in school can do without minute specialization in a small area but not without a reasonable mastery over the whole field he teaches ?

Another lacuna the present-day college and university courses have from the point of view of teaching is that however detailed and minute they may be, they do not throw much light on the nature of the disciplines or give any insight into their basic principles. True, that many

textbooks have in the introductory chapter a discussion on whether the discipline is an art or a science, whether it is normative or otherwise and several such other pointless and superficial matters. A student may go through the highest studies without having even heard of the principles on which the discipline is based, its history or the methods of its study and developments, in short, of what is now called the 'structure' of a discipline.

It may be objected that such teachers' courses may take away from the values that present courses bring with them. Properly conceived and designed courses, whatever their content, will yield the same results. After all, courses are not given and taken because their content is more significant than others.' A period of Indian History has practically the same value as others. Except, perhaps, for that handful of students who think of further specialization, the type of course spoken of above will have the same value as more intensive courses for the generality of college-goers.

THE ROLE OF THE UNIVERSITY

The other agency that is responsible for the pre-service preparation of teachers is the training college or university training department. The pattern being what it is, it is too much to expect that much can be done in these institutions in imparting knowledge of subject-matter. In fact, traditionally, training colleges in India have only been concerned with the methodology of teaching.

Some aspects of methodology are, however, neglected in our training colleges and it is time we paid greater attention to them. What is usually taught is bookish and theoretical, and sometimes out-moded. Practice teaching is too often fossilized, with undue emphasis on the outward embellishments of methodology than on its spirit.

These statements need amplification. Whatever be the organization of the subject-matter in a Social Studies course, some outcomes are expected of it. For example, it is expected that a pupil who undergoes at school a Social Studies course will grow up into an intelligent citizen, in whom the rudiments of critical thinking have been ingrained, who has learnt to work co-operatively for some common good, who as the citizen in the making of a democracy has developed respect and sympathy for the individual and who has practised some desirable habits so well that they have become automatic. It is for the training colleges to aim in their day-to-day work at developing these qualities in the prospective teacher and at creating in him a conviction in their inherent values, which will impel him, in turn, develop them in their pupils. Work in training

colleges may be less formalised so that attention may be paid to this aspect of methodology.

Pre-service training can of course take care of the future when it is purposefully designed, but what about the vast number of teachers already in the field? For them, of course, the only remedy that can be suggested is purposive in-service course.

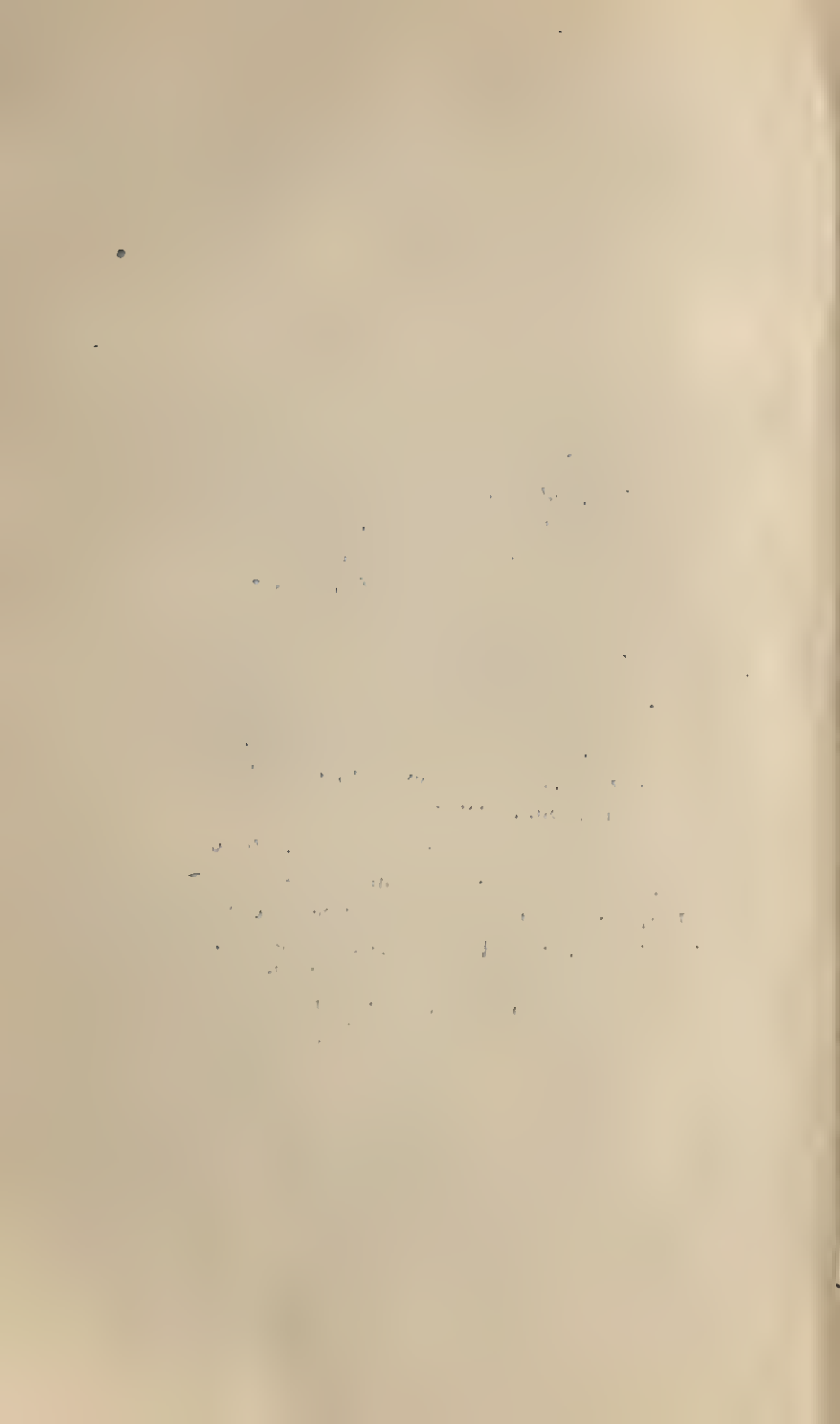
RE-ORIENTING TEACHERS IN SERVICE

In-service courses for teachers of Social Studies will have less to do with methodology than with content. First of all, these teachers need to have a comprehensive view of the whole field from scholars and specialists, who should collectively help in designing the course.

Secondly, they need a series of talks acquainting them with the methods of approaching the subject-matter in the way a scholar does. This can lead to an understanding of the fundamental principles that underlie a discipline or an organized field of knowledge. Thirdly, scholars again should be invited to give a number of talks on the recent developments in the subject that have contributed to its growth or have opened up new frontiers or have interacted on other fields of discipline. Side by side, another kind of specialists should exemplify new possibilities of the subject in the classroom by explaining the new ways in which the syllabus in the subject is being organized and the new methods and techniques that are being adopted in classroom teaching.

It would not, however, be wholly correct to deduce from the above that a training course consisting only of talks and lectures is being envisaged. In this course, too, there should be an emphasis on that aspect of methodology that has been discussed earlier. If critical thinking is to be developed in our pupils, teachers should be initiated into how it can be done. If it is desired that pupils should learn to work together for common good, the training course should be able to practise it. If pupils have to be taught to have respect for others' views, there should be opportunities for free and frank exchange of opinion, when everybody speaks and listens in turn.

Today 'Institutes' are being organized all over the country for the re-orientation of the teaching of science in schools. No less imperative are such institutes for teachers of Social Studies.



CHAPTER XIX

SUGGESTIONS FOR A PROGRAMME OF PRACTICAL TRAINING FOR PUPIL-TEACHERS IN SECONDARY TRAINING COLLEGES

(P. K. Roy)

[WITH education embracing wider fields of personality development and adjustment, it is only natural that teacher education should take into account the changing norms and requirements. The integration of "head, heart and hand" in children calls for a similar integration in the teacher who guides them. This means that academic learning and theoretical study has to be successfully supplemented by practical training. Realization of the importance of out-of-class experiences even for scholastic achievement, has led to equal emphasis being given to guidance and direction for many activities which would not have found "respectability" in educational institutions even a few decades back. Shri P. K. Roy, of Central Institute of Education, gives below a scheme of work for teacher-trainees, which has been found practical, useful and enjoyable. Apart from practice-teaching which is the sole practical work undertaken by most training colleges, quite a few venues practical training are suggested, which would make the teacher in the school a little more human, approachable and nearer to the modern concept of an "educator".]

OBJECTIVES OF PRACTICAL WORK

Several expert Committees and Education Commissions have pointed out the weakness of the pre-service training offered to the pupil-teachers in the training colleges. Most of these reports stress the importance of practical work as part of the preparation to become a teacher. Fortunately many of the training colleges in the country have taken notice of these comments and as a result we find a fairly large number of institutions organising programmes with a practical bias.

Before drawing up a programme of practical training one should consider the objectives of such a programme. Many institutions offer a very limited programme in the shape of a prescribed number of practice teaching lessons supplemented by some observation or criticism lessons.

The class room teacher however requires a wider experience which should make him efficient in his day-to-day work. In the first place the teacher needs to know something about the school in which he would be working. He should have an idea of the minimum facilities needed in the daily work of a teacher. This involves a knowledge of equipments and other physical facilities which the schools can offer. It does not mean that teachers should look for an ideal set up but such knowledge makes them realistic.

THE TEXT-BOOKS

The teacher also needs to know the qualities of a good text-book and how the text-book can be utilised most in classroom teaching. It is, therefore, necessary for pupil-teacher to have an experience of examining a fairly large number of text-books in the subject of his specialisation. It would be a good idea to have the students review one or two textbooks keeping in mind various criteria for the selection of a textbook. Critics however will point out that teachers do not select textbooks for their classroom work. Textbooks are in fact selected by Textbook Committees and the teacher has hardly any choice in the matter. It is however to be noted that the teacher may not be the person selecting the textbook but if he is conscious about the qualities and the limitations of a particular textbook he can make full use of the textbook and supplement it with additional reading material and information. In several areas however we find teachers being associated with the textbook selection procedure. This is a move in the right direction. The teachers also should be interested in the library of the school. This means the teacher should have an experience of the school libraries as they exist today and should be trained to improve the library of the school where they will be teaching. It is perhaps a weakness of our programme in many places that the library of the training college is not a good one. Students do not get a feeling of the importance of the library. In any educational institution library should be considered as the central place of activity. Unless there is a variety of interesting and attractive reading material in a library—whether at the training centre or at the school—the teaching programme cannot be functional and successful. Library is useful in curricular, co-curricular and recreational activities.

CO-CURRICULAR PROGRAMME

The pupil teacher, when he goes to the school, will also be required to take charge of certain extra curricular activities. Now-a-days every school wants to offer a varied programme of extra curricular activities for the students. To my mind these activities have not yet been establi-

-shed as a part of the regular school work. Most headmasters consider these activities as important because it happens to be the fashion of the day. In some cases extra-curricular activities are organised in a haphazard way. Sometimes it is allotted one particular day of the week, namely, Saturday. In other cases these activities are organised outside the regular school hours. It seems that there is no clear objective in the mind of the organiser. If the pupil-teacher is given training in organising extra-curricular activities he will be able to give the extra-curricular activities meaning and sense of direction. It is not necessary to multiply activities but a student can be given a choice of selecting one or the other. It is desirable to include only those activities in the programme of training which could be duplicated without difficulty in the school situation. It has been found convenient to organise activities through hobby clubs, Literary clubs, Dramatics Clubs, etc.; the advantage is that the students can choose a particular club and can continue to be a member of that club throughout the year. This develops in them a sense of loyalty to the club and makes the participant more interested in the work. These pupil-teachers can be encouraged to organise one or two activities of their choice in the school where they would be practising.

RECORDS AND REGISTERS

The classroom teacher is also required to maintain various kinds of records and registers. One of the complaints of many trained graduates is that when they go to the school they are asked to do the kind of work for which they were not been given training. This is a legitimate complaint and the training college should give adequate training in the maintenance of registers and records. This perhaps can be done by advising the students to spend some time in the school and study the system operative in that school. Their observations may be recorded in a brief report to be submitted to the supervisor of teaching practice.

TEACHING AIDS

Every teacher needs to make his lessons interesting and effective. One of the ways he can make his lessons interesting is the use of visual aids. Schools cannot afford to buy costly equipments, but every teacher can prepare certain simple visual aids, like flannelograph which will make his lesson more meaningful. The training college has a responsibility in this matter. If the pupil-teacher can be given some training in the preparation of visual aids out of inexpensive materials the programme of practical training will be enriched. Ordinarily there is a tendency among the trained graduates to look for readymade expensive aids.

EVALUATING ACHIEVEMENT

The teacher is also required to evaluate the work of the pupils in the classrooms. He should, therefore, understand the nature of examinations prevalent in the schools and should know how to improve ordinary classroom examinations. It is not enough to tell the students that the present system of examination is defective; it is necessary to provide systematic training in constructing proper evaluation tools. It would be a good idea to require every pupil-teacher to analyse a number of question papers in a particular class in the subject of his specialisation. A report of such a study should be submitted to the supervisors. Certain training colleges require their pupil-teachers to construct an objective test in a specialised subject. I would suggest that it may be a simple test consisting of not more than 50 items, but it should be administered to the class and a report on this administration should be required. It would be difficult to provide training in the techniques of standardisation but should have some insight into making of good items keeping in mind the aims of a lesson.

KNOWING THE CHILDREN

Another useful activity that can be thought of in a training programme is the systematic observation of children. Very often the teachers have a feeling of dissatisfaction with a number of children in a class, but he really does not know what is the trouble. If he has learned as a part of his training to observe children in a scientific fashion, he would have much useful information in his possession. This will help him to understand children and also draw necessary conclusions out of a particular situation. As a part of the psychology work in the training programme pupil-teachers should be required to study a particular child and prepare a report on the behaviour of such a child. This will give him an opportunity of being objective and also to appreciate the value of guidance in the improvement of behaviour of children.

PRACTICE TEACHING

Finally we come to practice teaching. Practice teaching happens to be the only practical work for a large number of training colleges, but even here we find a great deal of variety. There are certain institutions where a system of continuous teaching practice obtains. The idea underlying this practice is that there should be a relationship between theory and practice. If the students can teach and also listen to the discussions on the principles of education they are likely to do well in their teaching. Such institutions either require students to go to the schools for two full

days in the week or for half a day each day. The other kind of practice is a system of block teaching. This means the students are sent to a school for a period of six to eight weeks and finish their teaching practice and take their final examination when the practical training is over. There is also a system which gives the pupil-teacher an experience of practice teaching for a limited period of time during the session. After the conclusion of theoretical course the students are required to go to a school for the whole month to complete the required number of lessons. There is however another system where the continuous teaching practice is followed by a block teaching of about two weeks. This has certain advantage. Students can benefit from their theoretical training when they are actually teaching. They also have the benefit of block teaching during which period they come to know their students better and learn to handle their subjects more realistically in the existing school situation. One criticism against continuous teaching practice is that the pupil-teacher finds it difficult to pick up the thread each time he goes back to his class. In certain subjects this can be avoided when the regular class teacher has agreed to hand over a few specified topics to the pupil-teacher. Although this is possible in certain subjects, in certain other subjects like mathematics, it is difficult to attain unless of course the division is according to subject areas like Arithmetic, Geometry and Algebra. This, however, is not usually possible because the regular class teacher does not want to hand over a complete subject area to the pupil-teacher.

There is a practice of arranging demonstration lessons for the benefit of pupil teachers. These lessons are taught by the staff members. They are useful only when they are held in the respective schools. The more usual practice is to hold them in training colleges. This is artificial. The pupils in the class do not seem to feel at home in a changed environment and therefore their responses are not spontaneous. Secondly they do not find any use in attending a class where a lesson is presented almost torn out of context. There is no continuity in their learning experience. The staff members who teach the demonstration lesson do not feel happy because for them too it is a special occasion. Except for this day when the lesson is arranged the training college lecturers do not have any first hand experience of class-room teaching in schools.

PHYSICAL EDUCATION

There is one other aspect of practical training which many training colleges tend to ignore. This is the programme of physical education for the pupil-teacher. It is true that all teachers will not be teachers of

physical education, but since every teacher is incharge of some extra curricular activities, physical education gives them some advantage. Moreover a physical education programme keeps the students alert and active. A compulsory programme of physical education makes it easy for the Physical Training Instructor in the school to carry out his programme because of the co-operation he is likely to receive from all his colleagues.

The programme of practical training should therefore be framed with an eye to the needs of the classroom teachers in the school. The training college should not bring in any activity into this programme which is not relevant to the work of a classroom teacher. The students should not be given an impression that the training college is a place where academic work is not encouraged. The teacher is after all a scholar and he has to encourage and sustain scholarship among his pupils. Whatever programme of practical work may be offered in the training college it should not stand in the way of developing a programme of sound scholarship. The practical programme should be used to supplement the theoretical instruction so that the trained teacher becomes a thoughtful and resourceful individual who enjoys teaching and yet considers learning as an adventure.

APPENDIX

We give below a brief description of the kind of practical work that is expected of the pupil teachers in the Central Institute of Education, Delhi. In the main it is an extract from the official hand book.

Two Main Divisions :

Under 'Part B-Practice' in the University Ordinance relating to the Bachelor of Education Degree Examination, the entire practical work is grouped under two main heads as follows :

I. Practice Teaching	...	250 marks
II. Sessional Practical Work	...	250 marks
Practical Schools Assignments	...	50 marks
Visual Education and Craft Projects	...	50 marks
Tutorial Work	...	50 marks
Psychology Practicals	...	50 marks
Co-curricular activities	...	50 marks
(including physical education and hobbies)	...	

I. Practice Teaching.

1. Every student is required to give at least fifty practice lessons (including two criticism lessons) during the period of practice

teaching which is spread over the three terms from August to February.

2. In addition, he is required to observe and to make notes of twenty five lessons given by his colleagues or by teachers in his practising school.
3. Every student is required to maintain a diary of his practice teaching, in the form and in the manner prescribed and explained to the class before the practice teaching begins.
4. There will also be some demonstration lessons given by members of the Institute staff and by some experienced teachers, and students are expected to attend them.

Note : (i) The notes of practice lessons and the notes of observations of lessons will be maintained in separate note-books. Both these note-books must be maintained up to date and must be shown to the supervisor of lessons whenever he comes to the school for supervision.

(ii) Facilities will be given to students to discuss their draft notes of lessons at the Institute before the lessons are given. Every student is required to discuss with the lecturers in his methods subjects at least five out of the 25 lessons that he is expected to give in each of his teaching subjects. Of these 5, at least two must be discussed in the first term and the rest in, the second term. The notes of lessons thus discussed must be signed by the lecturer concerned.

II. Sessional Practical Work

As stated already, the sessional practical work consists of five different types of activities which are detailed below :

I. Practical School Assignments

These are studies relating to the student teacher's practising school, the secondary school curriculum, evaluation of school work, etc., which have to be prepared during the period of practice teaching. These studies must be based on actual data collected by the student. They should not take the form of general essays written with the help of books and lecture notes.

TOPICS

Sl. No.

1. A critical study of some special aspect of the practising school (topic to be approved by the supervisor).

2. A critical study of the syllabus (in one of the student-teacher's methods subjects prescribed by the Delhi Higher Secondary Education Board, or any other topic assigned by the subject lecturer).
3. A critical study of the system of examination in operation in the practising school (including a criticism of one specific examination paper in the methods subject, other than the one in which assignment No. 2 has been submitted).
4. (a) The construction of an achievement test—new type—in each of the two methods subjects).
 (b) Administration of the tests
 (c) Submission of reports

II. Visual Education and Craft Projects.

A. Visual Education Work.

1. Every student is required to prepare the following articles and to submit them for inspection and evaluation by the date appointed for each item :

- (a) 2 charts, or maps, or friezes, or a set of khadi-graph illustrations. These must be related to the student's two methods subjects.
- (b) A three-dimensional model, in the round or in relief. This may take one of the following forms :
 - (i) A historical model
 - (ii) A geographical model
 - (iii) Some scientific apparatus
 - (iv) A model or an apparatus for the teaching of mathematics.
 - (v) Didactic material for use in the nursery class
 - (vi) A diorama or panorama

Any one or more of the following media may be used in the making of the model : paper, cardboard, wood, metal, plasticine, clay, plaster of Paris, 'papier mache', and other subsidiary materials like cotton, cloth, bamboo, leaves, etc.

The model must be related to one of the two methods subjected by the student.

- (c) A scrap-book or a class magazine.

2. Every student is required to learn to operate the following items of audio-visual equipment ; epidiascope, filmstrip projector, cine projector and tape recorder.

B. Craft Work

Every student will have to select one of the following crafts and submit at least three articles prepared by him, one in each term :—

I Woodwork

1. General study of various timbers and their characteristics methods reasoning.
2. Techniques of sawing, planing, sizing, boring, chiselling, joining and finishing, wood carving, etc.
3. Designing and construction of articles of everyday use, such as panels, frames, book racks, ink stands, of wooden sculpture or toys.

II. Metal Work.

1. Making designs of useful things.
2. Various methods of shaping metal.
3. Methods of joining metal.
4. Constructing useful articles in metal, or creative pieces like mobiles, stables, etc.

III. Batik Work.

1. Planning designs in light masses against a dark background.
2. Printing.
3. Waxing.
4. Dyeing.
5. Tie-dyeing.

IV. Book-Binding.

1. Preparation of materials used in book-binding.
2. Preparation of paste and glue.
3. Methods of decorating paper.
4. Methods of fastening pages.

III. Tutorial Work.

As part of the tutorial work, every student-teacher is required to write 2 essays and one book review in the course of the session, one in each term.

Beside these essays, students will discuss in the tutorial meetings important educational problems announced by the tutor from time to time. All students are expected to participate in these discussions. For thoughtful and useful participation they should come prepared with brief notes in the form of points for discussion and quotations from educational literature.

The tutorial meeting will also be used for discussing individual or common problems arising out of the students work, both curricular and co-curricular, at the Institute.

IV. Psychology Practicals.

Since many teacher educators will consider this as a part of regular psychology work we refrain from quoting this section from the official hand book.

V. Co-curricular Activities.

Co-curricular activities are an important feature of the practical training given at this Institute. Because of individual differences in abilities and interests, we provide a wide range of such activities and our students are expected to participate actively in them. The various activities for which opportunities are provided can be grouped as follows :

1. **Literary Activities :** The morning assembly, debates, symposia, panel discussions, mock parliaments, etc ; poetry reading, play-reading elocution competitions. etc; the Wall Magazine, the C.I.E. Record, the Alok, and the Press Club.
2. **Music and dramatics ;** plays and pageants ; musical programmes.
3. **Arts and crafts.**
4. **Celebration of national and international days and of anniversaries of great men.**
5. **Games and sports.**
6. **Excursions (general and group-wise), visits to educational institutions, hikes and picnics.**

Note : For more intelligent and effective participation in co-curricular activities, provision will be made for the organization of Hobby Clubs which will meet regularly, every alternate Friday. Every student will be required to join one of the following Hobby Clubs :

1. **The Literary Club**
2. **The Dramatics Club .**
3. **The Music Club**
4. **The Arts and Crafts Club**
5. **The Decorative Arts Club**
6. **The Co-operative Stores Society**
7. **The Camera Club**
8. **The Science Club**

Besides these, students may join the C.I.E. Planning Forum and the C.I.E. Unesco Club, which organizations have been established to enable students to study and take active interest in affairs, national and international.

CHAPTER XX

CO-CURRICULAR WORK IN TRAINING COLLEGES

(Latika Rajpal)

[It is almost universally accepted today that education means something beyond and more than mere academic knowledge. Yet, the trainees who come to us have hardly had scope for trying out their potentialities in other respects. A rich co-curricular programme is an essential ingredient in a training college which seeks to turn out products at least partially capable of fulfilling the innumerable tasks awaiting them. Srimati Latika Rajpal, of Central Institute of Education, delineates the objectives and purposes of such a programme, and enumerates the various programmes obtaining at present in some of the best training colleges of the country. Very few teachers colleges have the organisation of Co-curricular Activities as a field of specialisation. But, it is obvious that such a course should find a respectable place as part of the curriculum itself, if the goals we have in view are at all to be achieved. An integration of curriculum and co-curriculum into a "total learning experience" is what we should aim for, if teacher education is to be any success.]

As the Co-curricular activities have now assumed a significant place in the life of a school, the concept of a good teacher has also altered. A good teacher is one, who, besides knowing his subject well, has an amiable personality, and is able to contribute and organize at least one co-curricular activity.

Sports and athletics have been included in the formal schedule of the school, hence a qualified person is usually in charge of the department of physical education. Even though co-curricular activities are now considered essential in the school programme, qualified teachers to conduct the same are not available. The responsibility for bridging this gulf remains with the Teacher's Colleges. Fortunately the trend is moving towards the fulfilling of this responsibility.

SOME CO-CURRICULAR ACTIVITIES OF TEACHER'S COLLEGES IN INDIA

1. Literary-annual and monthly magazines, wall magazine, bulletins etc.

2. Debates, Symposia, Morning Assembly Programme, Study Circles
3. Dramatics and Speech
4. Music and Dancing
5. Games and Athletics
6. Exhibition and fets
7. Extra-mural and Intra-mural lectures
8. Scouting, Guiding and Red Cross
9. Labour Camps, Citizenship Camps
10. Excursions, educational visits, picnics and hikes
11. Mock courts, Mock parliament, Brains Trust
12. Educational Gathering
13. Mushaira and Kavi Samelan
14. Alumni functions-Reunion week
15. Celebrations of festivals, national days, house-patron days, birth-days etc.
16. Some form of student's government
17. Hobby Clubs
 - (i) Dramatics (ii) Camera, (iii) Music and Dance (iv) Gardening (v) Crafts (vi) Decorative Arts (vii) Languages (viii) Science (ix) History (x) Geography (xi) International Relations (xii) Planning Forum (xiii) National Integration (xiv) Film Society (xv) Social Service League (xvi) Journalistic Society (xvii) Translation Society (xviii) U.N.E.S.C.O.

The co-curricular programme of the schools has similar activities with the conspicuous exception of the home-room activity, which is specifically meant for school children.

THE GOALS IN VIEW

The co-curricular activities in the Teacher's colleges serve the following purposes :

- (1) The trainees learn to organize various activities
- (2) They acquire knowledge through each activity
- (3) There are quite a few pupil-teachers who have not got the opportunity of going through good schools and colleges, hence they have never had the chance to participate in such activities. Some discover for the first time in the Teacher's College, that they can dance, or sing, or speak or write or arrange flowers not too badly. This new discovery is likely to give them self-confidence. It has been noticed that a negative

personality in July has blossomed into a self-confident person in March because he has discovered his latent potentialities.

(4) Some pupil-teachers come from situations where they have been burdened with family care and finances from early youth. This one year is a little change for them. They learn to laugh at themselves and participate and enjoy in activities, meant for younger people.

(5) When seeking employment, a good co-curricular record is a help.

(6) Some take to the handwork forced on them during the course, as a hobby for life.

(7) Through production of plays, excursions, picnics, hikes, panchayats etc. close contact is established between the lecturers and pupil-teachers. This has immense possibilities in guidance work.

The implementation of formal co-curricular system has its difficulties also.

(1) The pupil teachers come for a short term of nine months. They obviously have a heavy programme of academic work. It is difficult to do justice to other activities also.

(2) As the pupil-teachers have different backgrounds, it is sometimes difficult to lead them on to take interest in some of the usual activities. This problem has to be carefully tackled by the lecturer concerned.

The Teacher's Colleges will have contributed much if they are able to do the following :

I. To instil in the minds of pupil-teachers the value of co-curricular activities in school. That the purposes of this aspect of school life are :-

- (a) To learn how to make desirable social adjustments. To learn proper relationships, (i) between individuals (ii) between individual and the group-to learn to understand the behaviour of others.
- (b) To extend interests into broad areas of community life.
- (c) To discover additional ways of interpreting and applying the organised knowledge of subjects in the regular curriculum.
- (d) To learn to participate informally and worthily in a variety of wholesome recreational activities.
- (e) To develop high standards of conduct.

They create a school spirit, and establish a vigorous way of working which may carry over into other activities and class work.

- (f) To learn how to live and function independent of other persons for a portion of the time.
 - (g) To explore potential talents and to develop special skills.
 - (h) To bridge the gaps between school, home and community.
 - (i) To experience and enjoy school environment which is well balanced, conducive to good citizenship, and which prepares for worthy and practical home and community life.
- II. To help pupil-teachers to discover their individual talent in at least one specific field of co-curricular programme.
- III. To stress that a considerable part of teaching success will depend upon the effectiveness, as a leader of co-curricular activities.
- IV. The pupil-teacher must have a thorough understanding of the fundamentals and practical needs and problems of adolescents. That these activities are part of the school's total programme designed to contribute to the welfare of pupils.

CO-CURRICULAR ACTIVITIES OF SOME TEACHER'S COLLEGES IN INDIA

- I. David Hare Training College, Calcutta.
 1. Dramatics
 2. Debates and Lectures.
 3. Athletics and Sports.
 4. Celebration of special days.
 5. Literary-magazine is Education Today.
 6. Re union-Education week.
 - (a) debates; seminars; symposia; external lectures; exhibition of arts and crafts.
 7. Visits and excursions.
 - (a) to schools, colleges, factories, water works etc.
 8. Film show.
- II. Women's Training College, Dayalbagh, Agra.
 1. College Union.
 2. Social Service League.
 3. Debating Society.
 4. Dramatics Association.
 5. Games Association.
 - A. English Study Circle.
 - B. Hindi Sammelan.
 - C. History Association.
 - D. Graha Vigyan Samiti.
 - E. Sangeet Samiti.

F. House Reports.

G. N.C.C.

III. Jamia Milia Islamia Training College, New Delhi.

1. College Union.
2. Games sports-Scouting.
3. Wall magazine.
4. Craft Clubs.
5. Alumni Association.
6. Celebration of the Annual Day.

IV. Govt. Teacher's Training Institute, Ajmer.

1. Village Contact Programme.
2. Physical Training.
3. Celebration of Social, National and religious festivals.
4. *Associations :*
 - (1) Basic Shiksha Uttam Parishad.
 - (2) Shiksha Sadhan Education.
 - (3) Agriculture Association.
 - (4) Scouting and Red Cross.
 - (5) Amateur Dramatics Club.
 - (6) Music Association.

5. *Hoby Clubs :*

1. Durce making, toys, Navar, Trouser's cord making; wire fruit, baskets, reed chairs; fret work, leather work.
6. Educational Mela and Exhibitions.
7. Excursions.

V. College of Education, Kurukshetra.

1. Assembly addresses.
2. House activities.
3. Celebration of National days.
4. Biological Association.
5. Chemical Association.
6. Geographical Association.
7. Historical Association.
8. Prasad Hindi Sahitya Parishad.
9. Punjabi Sahitya Sabha.
10. Gardening Club.

VI. Central Institute of Education, Delhi.

1. Students Panchayat (5 members are elected)
2. Three houses with captains and vice-captains Gandhi, Lincoln and Tolstoy.

3. Physical Education—sports and athletics on house basis.
 4. Each student addresses the morning assembly at least once during the session.
 5. Inter-House activities.
 - (1) One act Play.
 - (2) Flower arrangement.
 - (3) Short story telling competition.
 - (4) Debates in Hindi and English.
 - (5) Wall magazine.
 6. Literary activities.
 - (1) Wall magazine.
 - (2) C.I.E. Record.
 - (3) Annual Alok.
 7. Clubs.
 - (1) Dramatics.
 - (2) Decorative Arts.
 - (3) Music.
 - (4) Camera.
 - (5) Literary.
 - (6) Planning Forum.
 - (7) UNESCO.
 - (8) Science Club.
 8. Scouting & Guiding Course & Camp.
 9. Foundation Day Celebrations.
 10. Alumni Days.
 11. Guardians Day.
 12. Hidden Talents Day.
 13. Student Help Fund Show.
 14. Co-operating with Extension Services Departments programme.
 15. Orientation Camp for 2 days at the begining of the session.
 16. Excursion outside Delhi for 2 weeks.
 17. Picnics & Subject Excursions.
- I. Activities in Teacher's Colleges abroad.
- Teacher's College at New Paltz State University of New York.
1. Arts & Crafts Honour society for creative work.
 2. College Band.
 3. Campus Guild—Sell Flowers to raise money for charity.
 4. Chess Club.
 5. College Union Board.

6. Delta Psi Omera (Dramatic Club).
7. Films Club.
8. International Relations Club.
9. Kappa Delta Pi (to improve education and scholarship).
10. New Sigma Epsilon—(Music).
11. New Paltz Players—Dramatics.
12. New York State Teachers' Association (debates education).
13. New Pi Sigma (Science Club).
14. Ora de (weekly newspaper).
15. 'Paltzonian' year Book.
16. Students Counsellors (for freshman etc.)
17. Students' Council.
18. Usher's Guild (for functions).
19. Athletic Association.
20. Women's Glee Club (Chair).
21. Sports.

Sororities & Fraternities.

1. Agonian.
2. Arethusia (Social Service).
3. Clionian.
4. Theta Phi.
5. Delphic (For men only).
6. Delta Kappa (for men only).
7. Phi Eta Sigma (For men only).

II. Peking Normal University.

1. Sports and athletics.
2. Swimming.
3. Chess.
4. Music Club.
5. Painting Club.
6. Drama Club.
7. Photography Club.
8. Literature Club.
9. Excursions— during holidays to a famous places or to a health resort.

III. Palmerston North Teacher's College, New Zealand.

Clubs.

1. Art and Craft.
2. Choral.

3. Drama.
4. Library.
5. Modern Industries and Teaching aids.
6. Current affairs and Debating.
7. Wood Work.
8. Photographic.
9. Dance.
10. Infant apparatus.
11. Maori Club.
12. Film appreciation.
13. Wednesday Night Choral Group.
14. Jazz Club.
15. Evangelical Union—Christian Fellowship.
16. Students Christian Movement.

Student's activities :

1. Executive.
2. Social Committee—Organizes Social functions through out the year.
3. Canteen Committee—provides refreshments during recess.
4. Publications Committee—publishes a monthly and the annual magazines, it has weekly meetings.
5. Sports Clubs.

Some Institutes of Education in the U.K. have listed activities like Music, Drama, Speech, Dance and Organization of Co-curricular activities, Physical Education, under specialized study courses. The practical work for these courses gives the pupil-teacher the necessary experience.

The financing of these activities is a hurdle in many colleges. Most colleges charge a fee ranging from Rs. 15-30 for the year which is used for co-curricular activities voluntary contributions are taken for excursions outside the city.

We are not yet sure whether the participation in co-curricular activities in Teacher's Colleges ought to be evaluated. At the Central Institute of Education, each student fills a printed form every term. At the end of the year there is internal assessment, and marks are allotted out of 25, Physical Education assessment, being out of another 25. The students who offer Organization of Co-curricular activities as an optional, are assessed for their practical work at the practice-teaching schools. It has been suggested that each pupil teacher ought to participate in the organization of at least one activity during the practice teaching period.

SUGGESTIONS

1. Educational Excursions must form a part of the course and authorities concerned should partly bear the cost.
2. Students record forms should be carefully maintained.
3. There should be plenty of variety in this kind of programme to enable the student to choose the activities in which they are interested, but each one should be encouraged to participate and prepare for at least one school activity.
4. These activities should be organized by the pupil-teachers themselves, with the minimum guidance from members of the staff.
5. The grouping of student into houses is helpful for competitive activities.
6. Continuity of activity must be maintained, and each group should meet at least once a week.
7. The lecturer's attitude is of significance to the pupil-teacher. Enthusiasm catching. The educative and creative values of co-curricular activities are to be stressed.
8. The pupil-teacher should be encouraged, wherever possible, to carry on similar activities in the practicing school. He should carefully observe the good and weak points in the functioning of the programme, and discuss with the group in the Teacher's College.
9. The pupil-teachers should visit some schools in town to be able to compare, and to learn for himself about the actual activities in schools and their results.
10. Each activity should be appraised at regular intervals.

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CHAPTER XXI

EVALUATING PRACTICE TEACHING

(M. N. Palsane and D. A. Ghanchi)

[HERE is the area which surely lies at the centre of the whole teacher-education scheme. No amount of theory, knowledge or skills acquired can be of any value, unless they are actually applied and practised in the class-room. Practice-teaching is the real test and criterion of the efficacy of teacher-training. How good is our supervision, how much do we guide the trainees in teaching ; how far do we discuss and help them solve the problems they encounter in professional situations—these are the questions a teacher-educator should ask, if he really wishes to improve education. Even a cursory glance at the prevailing supervisory practices, tells a sad tale of inconsistency, vagueness and even superficiality and carelessness. Shri M.N. Palsane and Shri D. A. Ghanchi of M. B. Patel College of Education, (Sardar) Vallabhbhai Vidyapith have evolved an objective and detailed evaluation sheet to cover all aspects of this most significant of training college experiences. Every training college lecturer who supervises practice-teaching will gain definitely by persuing and thinking about the suggestions given.]

INTRODUCTION

The training colleges play an important role in the educational system of the country in as much as they are the torch-bearers of the progressive ideas in the field of education. Year after year, the bands of trainees, that pass through these colleges, return to their schools with a outlook, a fresh vigour and a constructive ardour. The colleges feel the satisfaction of having sent the school-master abroad.

The sheet-anchor of a sound teacher-training programme is practice teaching, as it forms the vital part of the entire programme. Consequently, on the efficiency of practice teaching work will depend the fruitfulness to teacher training.

Practice teaching occupies a position of varying importance at different places. This manifests itself in different weightage given to it in

the training programmes of the different training colleges. Number of lessons to be given varies from place to place ; so does vary the weightage it is assigned in the final examinations. In spite of such differences, one basic fact is always realised that, this being a professional training course, the practical aspect of it must occupy a prominent place and should be given adequate attention. Unfortunately, the current practices do not lend support to this conviction and in cases, seem to threaten the very fundamental objectives of teacher education.

AS IT EXISTS

Practice teaching work is based on actual class-room performance by the trainee, on a pre-planned line of action set in a lesson note, under the supervision of a teacher from the training college, very often "the master of method". It is this triumvirate that has to be taken into consideration while detailing a scheme for the evaluation of the practice teaching work.

The lesson-note, of the usual routine pattern, bequeathed by the last generation, has been undergoing significant changes in view of the impact of the notion of objective-centred teaching. Hence, the change in the form requires a corresponding change in the approach of the teacher to his class-room teaching work, the procedures of implementing the plan and evaluating his work in the light of the pre-determined objectives and the teaching points. The supervisor, sitting in the class room, during the lesson has to devote minute attention to the twin factors : the lesson note and the teacher's actual translation of the plan into class-room activities. It is felt that a large number of trainees fail to grasp the inherent connotation of the changes in the lesson note and they mechanically follow the new steps with an assiduity equal to that which their predecessors evinced in following the historic Herbartian steps. It is not rare to find that the procedures adopted in implementing the new plan are exactly the same as were in case of the old system, camouflaged under the new nomenclature.

It will not be impertinent but interesting and revealing too, to refer to some of the fantastic ways in which some trainees often draw out their lesson notes, wherein they say that the objective of teaching a paragraph of a prose lesson in a language is to make pupils interested in literature, or a piece of historical information to make them wiser than their ancestors, or a phenomenon of Science to make them understand the value of science in life or a problem in geometry or arithmetic to make them rational on problems of life. Under the caption of "Learning

activities" are often huddled together "Hearing, Speaking, Understanding and Imagining"—all in a vacuum, without any goal. And by way of evaluation and assignment are enumerated exercises, that have not only no logical connection with the teaching thread but also no distant relation with the objectives.

These paradoxes are the symptoms of a half-hearted study and blinking non-understanding of the modern teaching procedures. The class-room performance on such a defective plan, can give results in no way better than unapprenticed cookery. The teacher, unconscious of the implications of his plan, would go in his own way and consequently he will remain untouched by the salutary effects of the training college.

THE SUPERVISOR AND HIS ROLE

It is obvious that the training programme of this nature would be an essay in self-deception, the prevention of which depends on the supervisor of the practice teaching work of the trainee, provided he has a vision of the work he has to do as a friend and guide of the teacher in the making. It is not enough nor professional to cast a casual glance at a lesson or two in a period, make the august presence felt to the shaking trainee, pass remarks of intense stiffness in the beginning, mollify them in the middle and improve them in the end and thereby derive a sense of vicarious satisfaction of having done professional duty by supplying a trained teacher to the school.

The typical, stereotyped remarks that sometimes a supervisor passes for lessons like "The lesson is one right lines," "Satisfactory work", "Right procedure and approach", or "Do not ask 'yes' 'no' questions", "Do not repeat pupils' answers", "Look more cheerful and lively", "Let not the chalk squeak"—etc. constitute only sanctimonious homilies couched in a vagueness and dismal aimlessness equal to one reflected in the trainee's lesson-note or his performance in the class-room.

In the author's opinion a pre-requisite of any programme of student teaching practice is that the supervisor should observe the lesson all through the entire period. Firstly, because it gives the supervisor ample opportunity to observe the trainee through all the steps and stages of his work. The assessment based on such a continuous and complete sample of the trainee's behaviour is more reliable than that made by just a peep into the class-room for a short while. The supervisor gets a detailed profile of the strong and weak points of his trainee. Secondly, this type of assessment alone can be a basis for giving instruction and guidance for improvement. The supervisor who has not

observed his trainee for sufficient time can only hazard a rash judgement about his total performance, which has very low reliability. The question of giving guidance for improvement hardly arises in this situation. These assessments are many times confidential because they are a part of internal marks to be included in the final examination results. The trainee is likely to be lost as to where he stands if the supervisor pays only a casual visit to his class and goes out making a quick appraisal of the student teacher and his teaching.

There is also another problem—that of interjudge reliability. If two or more supervisors observe the same lesson, do they agree in their judgements? If so, to what extent? When different supervisors observe the lesson, do they have the same point of view? Are they looking for the same things? One can hardly expect positive or affirmative answers to these questions. If this is the situation, some uniform criteria of evaluation must necessarily be evolved and judgements be made as objective and reliable as possible.

CRITERIA FOR EVALUATION

The objectives of the practice teaching work stated specifically, and the job analysis of the teacher's work in a typical class-room situation suggest the criteria mentioned below along with their specific explanations. The list is only a tentative one and other aspects can also possibly be included. But it goes without saying that some such points must be there in the mind of the supervisor to aid him to make his observation more specific and pointed.

CLARITY OF OBJECTIVES :

1. The specific mention of clear objectives with their specifications in the lesson plan.
2. Specifically relating various learning activities to relevant objectives in the lesson plan and its execution.
3. Keeping in view the different objectives during the conduction of the lesson.
4. Incorporating the specific objectives in the evaluation work of the lesson.
5. Selecting objectives having an eye on their realisability.

MASTERY OF THE SUBJECT MATTER

1. The incorporation of the relevant details of the subject matter in the lesson plan.

2. The appropriate marshalling of the facts for the development of the general theme.
3. The reference of appropriate and adequate source material to substantiate the running thread of the lesson.
4. The exhibition of relative depth of the subject matter in the lesson.
5. The recalling of the facts and information at appropriate moments during the lesson in operation.

PUPILS' INVOLVEMENT IN THE LESSON :

1. Involvement of the pupils to contribute to the growth of the lesson.
2. Involvement of the pupils for the passive assimilation of facts and information.
3. Involvement of the pupils for the reproduction of the subject matter through imitation.
4. Involvement of the pupils for positive contribution by way of interpretation, analogical, empirical or analytical deductions or spontaneous thinking.
5. Involvement of the pupils in the work of correlating their personal experiences with the learning process to enrich it.

THE RANGE OF ACTIVITIES PROVIDED AND THEIR PRODUCTIVITY :

1. The number of learning activities provided to the pupils.
2. The quality of the activities with reference to their organic relationship with the subject-matter, their pleasantness, their capacity to evoke spontaneous contribution from the pupils and their productivity.
3. The scope of the activities to inspire self-learning among the pupils.
4. The extent to which the learning activities lead to the realization of the objectives.
5. The scope that the learning activities give the pupils to think, to reason, to analyse, to synthesise and to deduce conclusions in connection with the subject matter.

PRESENTATION OF THE LESSON :

1. Creation and maintenance of a pleasant and invigorating atmosphere in the class-room for the lesson.
2. Presentation of the lesson as an organic whole with reference to the subject matter.
3. Provision of the scope of revision and its welding with the new material.

4. Adoption of different methods of teaching, especially, the group discussion technique, the project method, role-playing, the workshop technique, etc.
5. Organisation of the diverse elements of the teaching such as the teacher's questions, the pupils' answers, statements, the teaching aids, the black-board work, etc. into a functional unit.

THE EXTENT TO WHICH INTEREST IS CREATED :

1. The number of pupils devoting active attention to the class work and their locational distribution in the class-room.
2. The pupils' participation in the development of the lesson as manifested in their narration, description, discussion, etc.
3. The efforts on the part of the teacher to evoke interest through illustrations, analogies, quotations, aids, etc.
4. The creation of problem situations during the lesson by the pupils by way of their application of the subject matter to different situations.
5. The sustenance of interest throughout the lesson.

THE TEACHER'S ATTITUDE TOWARDS THE PUPILS :

It should be marked whether :—

1. the teacher is democratic in his dealings with the pupils in the class-room,
2. he is patient in handling the pupils in various situations,
3. he exhibits understanding of the problems of the pupils.
4. he encourages the pupils to face the learning situations, and
5. he evinces sympathy for the erring, the puzzled, and the withdrawing pupils.

THE TECHNIQUE OF EVALUATION ADOPTED BY THE TEACHER :

1. The relationship of evaluation work with the objectives of the lesson in hand.
2. The adequacy of the evaluation techniques used.
3. The reliability of the evaluation techniques.
4. The variety of the tests of evaluation embracing the different facets of teaching.
5. The reactions of the out-comes of evaluation by way of an appropriate follow-up during the lesson in action.

THE RELATION OF THE LESSON UNIT WITH ACTUAL LIFE :

1. The teacher's own insight into the relationship between the subject matter and the needs of life.

2. The range of real life situations covered during the lesson.
3. The appreciation of the functional correlation between the subject matter and the problems of life as manifested in the emphasis on this aspect in the class work.
4. The scope of moulding the right attitudes of the pupils for better adjustment in the background of the subject matter.

CLASS MANAGEMENT :

1. Providing, through one's own intellectual, moral and emotional integrity, a model of creative and responsible leadership to the pupils.
2. Employing the more intelligent, the more active and the leading pupils in the class-room situations for individual benefit and group upliftment.
3. Providing for the fusion of the elements of competition and co-operation in a rational unity.
4. Maintaining the discipline of the class as a whole.
5. Welding the different sections of the class into a homogeneous advancing group.

CLARITY OF THOUGHT :

This implies that :—

1. the ideas on the subject matter are precise,
2. the ideas on the subject matter are free from confusion and complications,
3. a notion represented by an idea is distinct from another, and
4. the meanings of new terms and words are clear.

THE CONSISTENCY AND THE LOGICAL NATURE OF THOUGHT :

This means that :—

1. the subject matter should have a logical continuity,
2. there should be a progressive development in the process of thinking involved,
3. the interrelationship between different ideas should be maintained through the lesson, and
4. the deductions should be in conformity with the formal rules of logic or scientific reasoning.

EFFICIENCY AND ADEQUACY OF LANGUAGE :

1. The adequacy of the vocabulary at the command of the teacher for the subject matter in hand,

2. The adequacy of the command over spoken language for effective, smooth, flawless and correct expression on the part of the teacher and easy, effortless understanding on the part of the pupils.
3. The clarity and the exactness of the language used during the lesson, both spoken and written.
4. The economy of the use of the language.

PREPARATIONS FOR THE LESSON

1. The attention of the teacher to his personal appearance.
2. The preparation of a proper lesson plan.
3. The collection of necessary information for the lesson.
4. The arrangement for necessary teaching aids and other ancillary material.
5. The mental and emotional preparedness for the work.

BLACK-BOARD WORK :

This embodies the following points :--

1. Planning and organisation of the black-board work according to the needs of the unit of the lesson.
2. Proper and timely use of the black-board during the lesson.
3. The productivity of the black-board work through its utility in leading the pupils towards further work in the class-room as well as at home.
4. The expressiveness and the propriety of the figures, the charts, the sketches, etc. on the black-board.

NEAT AND TIDY WORK HABIT :

1. Work in the class-room.
2. The black-board work.
3. The correction of note-books, journals, etc.
4. Practical work in the laboratory, the drawing hall, etc.

AIDS :

1. To visualise the utility of various aids in planning the lesson are to be resourceful in collecting or preparing by one self or through pupils the necessary aids for use in the classroom
2. To make a systematic, effective and productive use of the aids in the classroom.
3. To evince knowledge of the technical aspects of mechanical aids and to know the techniques of their maintenance, cautions handling and safe use.

4. To show skill to make pupils manipulate the teaching aids by themselves to accelerate the learning process.

HOME-WORK AND ASSIGNMENT :

1. Adequate quantum of assignment in continuation of class-work.
2. Variety of work according to different levels of the pupils.
3. Work involving activities related to the knowledge, skill and interest areas.
4. Work that would help pupils to recapitulate class-work and get sufficient practice in the fixation of the concept or the skill acquired.
5. Work that would encourage the child to experiment on the present bearing with a view to preparing for the future learning.

These criteria can be profitably used for developing a rating scale of the type given in the appendix. The student teacher's performance is rated on each one on a five point scale. If the attribute referred to in the criterion is displayed to the maximum possible extent, he is given the highest grade for that item; if he displays no amount of it, he is given the lowest grade; and so about the intermediate grades. The rating is made on each item by putting a circle around appropriate marks, as and when the supervisor gets the opportunity to observe it. All the items should however, be completed by the time the delivery of the lesson is finished. In the specimen given here, the authors have differentiated the first seven items from the rest in that, these are given greater importance and hence double weightage. According to this scheme, the maximum marks that one can get is a hundred and the minimum is, of course a zero. Each column can be added separately and the totals of all the columns can be added up in a grand total. This gives the performance score in terms of percentage.

This type of evaluation sheet has an additional advantage. The supervisor has only to look at it to tell his trainee his strong points and also the weak ones. The points on which he gets a high grade are his strong points; those, in which he attains a low grade, need improvement. The student teacher himself may have a look at the sheet to know exactly where he stands. It is easy for the supervisor to guide him specifically, keeping in mind the details of the procedure. Of course, this demands greater alertness on his part. But certainly it is not an unreasonable demand if it is made in order to improve the student teaching practices.

APPENDIX

EVALUATION SHEET

RATING OF THE STUDENT TEACHER'S PRACTICE LESSON

Candidate's Name :

Roll No :

Class-B. Ed./T.D. :

School (in which the lesson is given) :

Class (in which the lesson is given) :

Subject :

Lesson No :

Date :

	A	B	C	D	E
*Clarity of objectives	... 8	6	4	2	0
*Mastery of the subject matter	... 8	6	4	2	0
*Pupils' involvement in the learning process	... 8	6	4	2	0
*The range of activities provided and their productivity	8	6	4	2	0
*Presentation of the lesson	... 8	6	4	2	0
*The extent to which interest is created	... 8	6	4	2	0
*Attitude towards pupils	... 8	6	4	2	0
*The technique of evaluation used by the teacher	... 4	3	2	1	0
*How far has the unit been related to the actual life...	4	3	2	1	0
*Class management	... 4	3	2	1	0
*Clarity of thought	... 4	3	2	1	0
*Consistency and the logical nature of thought	... 4	3	2	1	0
*Efficiency and adequacy of language	... 4	3	2	1	0
*Preparation for the lesson	... 4	3	2	1	0
*Black-board work	... 4	3	2	1	0
*Neat and tidy work habit	... 4	3	2	1	0
*Recognises the importance of teaching aids and their use	... 4	3	2	1	0
*Homework and assignment	... 4	3	2	1	0
Total	<hr/>				

CHAPTER XXII

RECRUITMENT AND SELECTION OF SECONDARY SCHOOL TEACHERS

(*Snehalata Shukla*)

{SELECTION and recruitment of appropriate personnel to the teaching profession is a universal worry, perplexing both over-developed and underdeveloped countries. We need more teachers; the type of people who come for training are not satisfactory; the standards deteriorate -- and so, the vicious circle rotates in perpetual motion, perpetuating the problems created thus. Smt. Snehalata Shukla of the Central Institute of Education, shares with us below, the result of her long experience in the field. A sample survey of selection procedures, is reported and some measures for better recruitment and more reliable selection, are put forward. As a problem engaging the earnest attention of all teacher-educators in the country, this is a topic bound to be studied, discussed and experimented with by most of the training colleges and other educational institutions.}

THE CRUX OF THE PROBLEM

Ordinarily, the case for selection of teachers would need no pleading. For a task as important as teaching, one would certainly wish to recruit and select the best possible persons available. Selection being essentially related to the availability of candidates, we in India, have to pause and think before saying that pre-service selection in teacher education is desirable and or necessary. We have a shortage of trained teachers, a shortage which is going to increase with the rapid advancement of primary and secondary education. Should we then be selective and let this shortage continue or even grow? Do we not or should we not recruit everybody who offers to teach and provide some kind of schooling for the largest number of children? On the other hand, the question is, should we sacrifice quality (to a large degree) for quantity? To the last question few of us would have the courage and conviction to say 'Yes'. Quality in education is important and cannot be sacrificed; its consequences are many and serious. The school teacher, would, in many cases be the person who consciously or unconsciously determine

the future success of his pupils. He would be responsible for kindling the interests in academic pursuits, correct habits of study and desirable skills of further learning. The 'poorer' student would be responsible for general lowering of standards in higher education. Provision of poorer quality of teachers in schools may give us larger statistics of children in school or proportion of educated in the populations, but such gains may be more apparent than real. Apart from the fact that poorer quality of student would come out of high school such policy would do irreparable damage to the prestige of teaching profession and add to the existing problems of recruitment. Appropriate selection starting with certain minimums would be helpful in putting the quality of recruitment in an upward spiral. Selection for pre-service training, then, is not only desirable but necessary.

The training colleges are not in fact affected by this shortage of trained teachers. In most training colleges there are a much larger number of applicants than there are seats available. In institutions of repute like Central Pedagogical Institute, Allahabad, Vinaya Bhavan Training College, Vishwa Bharti and Central Institute of Education, Delhi, the number of applicants is five to eight times as large as the number of seats available. Selection is necessary in such institutions.

SOME VALIDATORY CRITERIA

To have meaningful selections before admitting candidates to a course in teacher training we should have a valid criterion of teacher success. The most direct one would be the gain on the part of the pupil; success in practice teaching is an intermediate criterion while judgment of the supervisors, principals and colleagues is a relatively indirect criterion of successful teaching.

Before I attempt to analyse the elements involved in these criteria let me mention some of the weaknesses and good points of the three criteria mentioned above.

Pupil-gain has the advantage of being the direct ultimate criterion, though it is by no means simple. Gain can be expressed in terms of simple acquisition of information or knowledge. It should be extended to suitable understandings, skills, habits interests and attitudes. While gain in information is more readily available, the more important gains mentioned later are not so easily measurable. Variables other than teacher, would affect learning on the part of the pupil, one very important one being the interpersonal relationship between the pupil and the teacher.

Success in practice teaching is more readily available, though the emphasis in such evaluation is more on decorum, discipline in class, good management, use of audio-visual aids, poise and confidence of the teacher, his grasp of the subject matter and so on. More often than not, practice teaching is judged on how well the *pupil teacher taught* rather than how skilful he was in making *children learn*. To this writer the two do not carry the same meaning. Ratings by inspectors and headmasters are likely to be heavily loaded with class management including actual house-keeping of the classroom, abiding by the discipline of the school, willingness to assist with routine work, ability to get along with his colleagues and success of his pupils. Pupil-gain, then is only one of the variables in the total criterion. To the extent raters can keep professional interests and instructional skills of the teachers in mind, more valid this criterion would be. A halo-effect is likely to be present in most of these ratings.

What variables can we differentiate from these criteria, on which teaching success could be predicted? The answers should mainly come through scientifically planned research. Research carried out elsewhere does not enable us to formulate our programme of selection and evaluation. At best it can help us formulate reasonable hypotheses which we shall have to check in Indian settings to draw our own conclusions. In the following paragraphs, I am going to place before the reader some of the elements the measurements in which *could* predict future success in teaching. As we consider pupil-gain the most valid criterion (on face value) this will be discussed.

THE PERSONAL QUALITIES

It has already been pointed out that pupil-gain is a very complex criterion. No attempt is being made to analyse this. Instead, the approach is, what is the kind of atmosphere or the type of individual with whom one is likely to learn most. A *kind and considerate* teacher is more likely to provide the essential security in the environment which is necessary for learning. *Patience* with individuals of different levels of ability may be needed most for maximum (total) pupil-gain. A reasonable *command over subjects* being taught and *wide interests* would be required to broaden the horizons of kinds of learning on the part of the children. *Ability to understand children's needs and knowledge of ways and means of satisfying them* will be other desirable qualities. On the negative side qualities of ruthlessness, lack of consideration of other individuals, inability to recognise and accept the fact of individual differences, low academic achievements and a pessimistic outlook on life may present

serious hindrances to learning on the part of the pupils. A neurotic, tense, short-tempered, or dull teacher is not likely to create conditions which will be conducive to learning. A teacher who does not know his subject matter reasonably well enough, will find the classroom situation threatening to his prestige.

✓ What should be a suitable programme for selection then? In the previous paragraph, a case has been presented for a number of personality characteristics in addition to scholarship. No mention has been made of intelligence. It is not that intelligence is not considered important enough but that a good academic background is likely to ensure a reasonable level of intelligence required for teaching in schools. Highly intelligent but neurotic teachers are less likely to succeed, than people of average intelligence having a balanced personality. Highly intelligent teachers who are unable to understand the needs of young minds, or accept the fact of a large number of children being less intelligent than they themselves are not the right types of teachers in the average school. They may lead very successfully a group of bright youngsters but may only frustrate a large number of average children. The reader should not get the impression that intelligence is being considered as an undesirable quality for successful teaching in school, far from it, intelligence along with desirable personality qualities would be ideal; intelligence alone is not enough.

To summarise, the following are the qualities that one would look for in a school teacher (a) good scholarship (which ensures a reasonable amount of intelligence) (b) consideration for and patience with people (c) an ability to estimate other persons needs and willingness to help them fulfil it. (d) pleasant voice and general cheerfulness. (e) broad interests.

SELECTION PROCEDURES

For actual selection purposes, a criterion of good scholarship may be the past record of achievement through school and college. I would suggest a minimum of second division in one of the university degrees. It can be argued that the number of teachers that we shall be able to recruit on this criterion (above) will be too small compared with the total requirements. I wish to remind the reader of my plea for enhancing the prestige of this profession which is closely linked with the quality of people who enter it. Till the day we can attract sufficient number of II division graduates to school teaching, recruit others, but call them *emergency teachers* making it clear that the quality of the persons who is fully accepted in the profession is higher than what we are temporarily forced to accept.

The criterion of scholarship can be used in many ways. It may be used as a dividing line separating those who will be considered for selection from those who cannot even be considered for appointments in schools. Or we can assign credits to various examination-results and give it a proportionate weightage in the entire selection battery. A combination of the two can also be used which gives advantage to better students ensuring the minimum scholarship of all teachers.

For measuring (e), tests of general knowledge which cover many areas of interests may be developed. Coverage of many interests is important here to ensure equal chances of success to students of various disciplines. For (b), (c) and (d), interviews seem to be the most practical solution.

An interview consisting of 'questions and answers' does not go far in revealing the kind of qualities we wish to estimate. It can give information on voice and appearance and also help in screening out people with grave physical defects. Group discussions are potentially far richer situations. Interaction and interpersonal relationships are visible to the observers. One can detect individuals to whom their own opinions are the last word and no one else has a right to have or express an opinion different than theirs, people who scorn the average mind, fail to stimulate any thinking, do not have any ideas of their own. With well thought out discussion programmes it may be possible to judge qualities like patience with, and consideration for other individuals. The ability to judge children's needs will be hard to estimate. It can be taught in training colleges, perhaps, more easily to those who have the qualities mentioned earlier.

The ideas presented in the earlier paragraph are the suggested measures till the time scientific research tells us about the correlates of success in teaching and till valid measures of such correlates are developed. Researches carried out in America point to four important factors namely, intelligence, scholarship, personality and scores earned on professional information. The one mentioned last in the list cannot be used for preservice selection. The first two are relatively easy to measure. It is on personality qualities that more information is required and more scientific but usable tools are needed. A tentative agreement on teacher success will have to be agreed with before launching large scale researches in this area.

A SAMPLE SURVEY

Most training colleges in India today are making some kinds of selections¹. A bachelor's degree from a university is a minimum requirement. Some selection is made on the basis of post scholastic achievement; criteria here vary. Some institutions who receive a large number of applications insist on at least a 2nd division in B.A., others feel content with one second division anywhere along the examinations. All² training colleges prefer some teaching experience and most give some credit to records of cocurricular activities. Intelligence tests are used by very few and general knowledge test by about 37%. Approximately one fifth of the institutions gave tests in school subjects, only a few used tests of teaching aptitude. Ninety per cent of the institutions use interviews for screening, a few used group discussion situations or actual community living.

Generally speaking, the selection is done on the basis of past records of achievement and interviews. Interviews are held by members of the teaching staff, though at places, experienced headmasters and inspectors are also involved. One institution has reported that a member of the legislative assembly also sits on the interview board. What we need, than, immediately is to make our interviews more pointed and objective, replace or supplement them with group discussion situations, make our observers and raters more conscious of the variables on which they are assessing.

It is the experience of this writer that quite often an interview board is not clear about the variables on which it is assessing the candidates. Some people ask questions only in the subject area in which the candidate has specialised, others wish to give credit for fluency with which a candidate can speak English, still others would like to help people who need a teaching degree very badly. It is not being suggested that evaluation should or should not be based on these variables but that a clearer understanding is required of what we wish to evaluate the candidates on. A clearer understanding of goals (and means too, if possible) would naturally result in better performance of the task.

These assessments can be validated by the training colleges against the immediately available criterion of assessment of practice teaching. Follow up studies for more information on the validity of tools for preservice selections may be conducted and findings made available to those concerned.

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- 1 These comment are based on information collected from 16 training colleges from all over India and should be seen only in that light.
 - 2 Refers to this sample.

Problems of selection are very intimately linked with problems of recruitment. A pre-requisite of good selection is a large number of people wanting to enter the profession. Therefore a planned programme of discovering potentially desirable and interested candidates for pre-service teacher education is highly desirable.

MEASURES FOR BETTER RECRUITMENT

To attract young men and women of ability to school teaching, the profession must enjoy a certain prestige. The role of pay packets in this connection has been talked of so often, that I am inclined to omit it here—not that it is not important. A prestige value of a profession also gets determined by the kind of individual who generally enters it. One such example is teaching in the universities. Raising the minimum scholastic achievement would in the long run add to the prestige of school teaching. How can we recruit better scholars to school teaching? Women candidates are a potential source; many women, regardless of their abilities prefer teaching for various reasons. Untrained bright graduates are another source, who if found suitable could be given training while on job through evening courses or by deputing them with full salaries for the purpose.

The new scheme for loans to deserving students may be utilised for recruiting better teachers by getting the loan repaid in terms of school teaching from three to five years. The present suggestion of loan to be adjusted against ten years of service as teachers is likely to discourage the better student again. Three or five years period is enough to enable any one to find out whether or not he/she wishes to make it a life long occupation. The schools may be able to retain some of these bright young men and women after they have had a taste of teaching. Greater information about the nature of satisfaction teaching has to offer may be imparted in high schools and colleges through career conferences or more detailed vocational guidance services.

The profession needs to be made more attractive by offers of special facilities like holiday homes, travel concessions during vacation, study concessions by way of appearing for examination privately or by getting fully paid study leave once in 5 to 7 years.

Short training programmes for prospective graduates may be organised during vacation etc. Needless to add that such programmes should not cost anything to the students. Similar in the line are free teacher training for all selected and stipends to a large number of them.

Study circles to discuss problems of education may also be organised fruitfully in the universities.

These measures, are only vaguely indicative of the immense task confronting us. To ensure even a minimum standard of achievement—scholastic, social and cultural—in our future generation, it is essential that we manage to secure the people with the desirable personality traits to take to the profession. Perhaps the area claiming top priority in our national endeavours, this—that of attracting and selecting the best recruits, to the teaching profession.

CHAPTER XXIII

HUMAN RELATIONS IN TEACHER EDUCATION

(P. L. Shrimali)

[HUMAN beings have always been enthralled and engrossed by themselves and their multifarious activities. The most complex problem, which has intrigued and defied their ingenuity, is the most vital one—that of human relations. We all realize how important it is ; everyone knows of some case of scintillating brilliance not harnessed for social or personal welfare or happiness—in fact almost destroying it because he or she did not know “how to get along” with others. Yet, our selection boards and evaluative procedures still neglect this most important skill a teacher should possess, if he is even to begin teaching. Sri. P. L. Shrimali, of Vidya Bhawan Teachers' College, Udaipur, discussess the importance of the issue and sketches an outline of what the training colleges can do to foster such awareness and improve such skills as are essential to the would be educator of the young. It is time we concentrated on this aspect a little more, as all other skills and knowledge turn to “dust and ashes”, if this one be ignored.]

INTRODUCTION

The role of human relations in education was recognised even in ancient times, when students used to live with teachers as members of their families. But the importance of developing a science dealing with human relations came to be recognised only recently. It is, being recognised that the objectives of teacher education should not be conceived only in terms of imparting certain instructional skills but also in terms of developing his personality and equipping him with necessary skill and knowledge to handle problems of human relations in education. These aspects find some place where there is a provision for internal assessment of the work of the trainees. In universities where there is greater emphasis is on external examination, these aspects tend to be ignored. Even the universities which like to emphasize human relations are handicapped for lack of researches regarding the manner in which human relations can be given proper place in the scheme of teacher education. The planning of

researches in the field seems to be necessary for enabling the institutions of teacher education to recognize the role of human relations in their work

PLANNING OF STUDIES

Studies in human relations in teacher education may have the following objectives :—

- (a) To investigate the role of human relations in the education of the teacher.
- (b) To investigate the nature of a suitable programme for equipping the teacher to handle human relations in educational situations effectively.

It needs to be borne in mind while planning such studies that the problems of human relations have to be investigated in the context of the cultural pattern of the society in which the programme of teacher education is to be conducted. Societies are likely to differ in the patterns of human relations that they would like to reinforce or weaken. Hence studies in India have to be planned with reference to the value system of our society, which itself requires clear and explicit formulation.

A few observations are, however, being made below with regard to the two aspects of the problem indicated above in the light of the prevailing conditions and the existing knowledge in the field.

HUMAN RELATIONS IN TEACHER EDUCATION

Studies in human relations clearly reveal that the development of the personality of an individual and his efficiency in performing a task is, to a considerable extent, determined by the social climate in which he lives, grows and operates. A few aspects of the social climate which are likely to play an important role in the education of the teacher are given below :—

- (a) The role of the teacher as defined by the society and the institution of teacher education.
- (b) The role of the teacher as defined by the prospective teacher himself.
- (c) The nature of satisfaction or dissatisfaction that students and teachers get from the life and work in the institution.

THE ROLE OF THE TEACHER

A significant factor which makes the programme of teacher education ineffective is that the institutions of teacher education, administrators and society in general do not share common perceptions regarding the role of the teacher. Some aspects of the life and work of the teacher which are valued by teachers colleges are not valued by the administrators

and the society, as a result of which the student-teachers approach the programme of teacher education as something which has significance for him only as long as he is under training and from the point of view of getting success in the examination. He does not develop the conviction that what he has to learn in the Teachers College is worthwhile and is to be practised by him as a teacher. He comes for education in a teachers college just to get the degree and with the feeling that what he learns there may have some intellectual value but very little practical value, and, therefore, it has to be left at the portals of the Teachers College when he goes out. This partly explains the failure of the trained teachers to exercise leadership in improving school practices, and the tendency of trained teachers to relapse fast into the traditional way of work after coming out of the teachers college.

Lack of common perceptions regarding the role of the teacher between the teaching staff and the examining body on the one hand and between teachers and student-teacher on the other hand is a great cause of friction. Some institutions who like to approach the work of teacher education from the point of developing the personality of the teachers tend to emphasize a variety of co-curricular activities which are ignored by the external examiners. The student-teachers in such institutions tend to develop unfavourable attitude towards the programme emphasized by the institution and towards the teachers who organise them. Teachers in such institutions have to be involved in conducting a programme which may have intrinsic value from the educational point of view but the students tend to approach the problem from a limited point of view of passing the examination. This cannot be a very satisfying situation either for the students or for the teachers; and it becomes difficult for the teachers college to try out new ideas and techniques. It is, therefore, not surprising that there has been very little experimentation in the field of teacher education in our country.

THE SOCIO-EMOTIONAL CLIMATE

The programme of teacher education is likely to produce best results if the teachers and the students find their roles and the social climate conducive to the growth and enrichment of their personality. Teachers often come to Teachers College not because they have learnt something from experience and practice which they think to be of value and worthy of transmission to the student teachers in the interest of the profession, but because of the higher status of the teachers in a Teachers College and better emoluments. The Teachers College is considered to

be an institution of higher education and it is more satisfying to be a teacher in a Teachers College as it is in other colleges of higher education. The comparison of a teachers college with an academic college also serves as a great source of dissatisfaction. The reference group for teachers in the teachers college is generally the staff of an academic college, although they have to perform an entirely different role. The work of guidance and supervision of student-teachers makes demands of different nature and this is not satisfying to some teachers in a teachers college. These teachers often compare their work with the work of the teachers of academic colleges and complain that they have less time for their personal reading and leisure. Some of these teachers often have the feeling that they would be more happy if they were teachers in academic colleges. This sort of dissatisfaction is likely to have unhealthy impact on their work and their relationship with students.

A source of satisfaction for a teacher in a Teachers College is that they have some opportunity to play their role in the evaluation of the performance of pupil teachers which gives them a position of power. Students in teachers colleges are therefore likely to show more regard for their teachers as compared to that in academic colleges where such opportunity does not exist. But this relationship also functions in an unfavourable manner from the point of view of building up of sound human relations. Students feel unhappy that they have to assume a submissive position. This comes in the way of growth of proper relationship based on mutual respect, trust and affection. It has been remarked by some teachers that in some cases students' attitude towards their teachers undergoes a change and they show less respect for them after the evaluation of their work is over and when they are no longer in a position to wield power. A scheme of evaluation of students' work which is based on objective considerations, which is considered to be proper by the students, and which is worked out without allowing personal favour and disfavour to enter into the process of evaluation is likely to be conducive to a proper growth of teacher-student relationship in a teachers college.

The training programme is likely to be satisfying to student-teachers if it provides opportunities for creative work and experimentation. Teachers Colleges in this country have a tendency to impose a rigid framework for preparing lesson plans and teaching according to the prepared plan. Teachers colleges must consider how to provide opportunities for the exercise of the creative faculties of student-teachers. This would be possible only when the teachers in teachers college were themselves

involved in creative work in schools. Unfortunately, in most of the teachers colleges in this country, the staff does not maintain living contact with school work. They often teach methods and principles which they themselves have never practised. Only a teacher involved in creative work in school will be in a proper position to appreciate the importance of creative teaching and able to create necessary conditions and guide the student-teacher in his creative adventure.

Receiving education from teachers who are warm, affectionate, mature with deep understanding of life problems and professional work, highly competent and emotionally stable can be a source of great satisfaction. "Students are influenced not only by erudition and teaching skills of the instructor but also by his maturity, stability and experience."¹ Our teachers colleges are hardly able to recruit such teachers. The need for good teachers in teachers colleges is evident and hardly requires justification.

EDUCATION IN HUMAN RELATIONS

The work of the teacher is essentially in the field of human relations and he needs to be trained from this point of view. Education is a matter of social inter-action. It is difficult to conceive of any aspect of educational activity which does not involve social inter-action. Moreover, the efficiency of teaching and learning depends not only upon the organisation and presentation of content material but also upon the social climate in which teaching and learning takes place. Effective management of human relations should form the core of teacher-education programme. We in this country have yet to be fully aware of this important aspect of teacher education. Some institutions emphasize community living and social service in teacher education programmes but they hardly meet the needs of a proper programme of education of teachers in human relations.

OBJECTIVES OF HUMAN RELATIONS PROGRAMME

The main objectives of a programme of education for teachers in human relations are suggested below :-

- (a) To develop appreciation of the important role played by human relations in education and make them familiar with the nature of problems that they are likely to experience in the field ;
- (b) To develop in student teachers understandings and skills of solving problems in the field of human relations ;

¹ Spector Samuel I : Another Look at Teacher Training, Journal of Educational Sociology, Vol. 33, No. 8, April 1960, P. 348

- (c) To develop insight into the functioning of instructional and informal groups and skills involved in effective management of human relations in various fields of school work ;
- (d) To develop understanding regarding the nature of relationship that needs to be developed between the school and the community, and skills for organizing schools as centres of community life ;
- (e) To develop skills of effective participation in school management on a cooperative basis.

REORGANIZATION OF TEACHER EDUCATION PROGRAMME

The training programme needs to be reorganised with a view to realising the objectives mentioned above. A few suggestions regarding the reorganisation of the programme are indicated below :-

(1) The objectives of education in human relations should be reflected in the scheme of evaluation of the effectiveness of student-teachers. No programme of reorganisation is likely to make much headway unless it forms part of a programme of valuation.

(2) The student-teachers should be led to examine the problems of organising group life in schools on the basis of Indian value system. The Indian value system has to be interpreted in terms of the social objectives emphasized in our constitution and in the way of life emphasized as desirable in our culture. A few significant aspects of human relationship patterned on Indian value system are indicated below :-

- (a) The desire to discover common good through mutual understanding and sharing of ideas and values. Differences in interpretation of common good are to be treated with patience and humility and with the attitude that differences occur, due to differences in out-look, and it is possible to resolve differences by trying to look at problems from the other man's point of view also.
- (b) The desire to make least demands from others for one's convenience and to make one's contribution towards the welfare of others.
- (c) The faith that the welfare of the individual and the group lies not in competing with each other for getting the maximum of comfort, convenience and luxury for one's self, but in trying to secure such conditions of living for the entire group as may be conducive to growth of love for humanity as a whole.
- (d) Refraining from imposing one's own ideas or solutions on others as something which may be absolutely true or as the only course to be adopted by all. Preparedness to conceive that different

ideas and courses may lead to a satisfactory solution of problems and to the realisation of common good.

- (e) Kenness to share joys and sorrows with others.
- (f) Equal respect for all statuses and positions in the group and to treat every position as significant and important from the point of view of the efficient functioning of the group.

(3) The student-teachers should have adequate experiences of managing instructional as well as co-curricular activity groups. They should be led to formulate the problems experienced by them and launch action programmes for solving those problems. They could be led to evolve general concepts and principles of handling human relation in schools (through the study of specific problems which they experience and try to solve).

(4) The student-teacher should be helped to understand the role of the teacher in Indian society and the nature of satisfaction and dissatisfaction that he is likely to experience and difficulties he is likely to encounter while working as a teacher. This requires investigation and it is hoped that results of systematic studies will be available in not very distant future to enable the teachers colleges to attend to this aspect of teacher education.

An out-line of the programme for training in human relations is indicated below :—

The programme should consist of field experience and discussion of the problem experienced by student-teacher in the field of human relations with a view to evolving basic concepts and principles of handling human relations.

FIELD EXPERIENCE

A few areas in which student teachers should have field experience are indicated below :—

- (a) Organisation of instructional groups.
- (b) Organisation of interest groups. e.g., science clubs, hikers' clubs, dramatic society, etc.
- (c) Organisation of co-curricular activities, e.g. games and sports, pupils' self government, school assembly, campus improvement project, community improvement project; etc.
- (d) Seeking co-operation from parents for the purpose of their childrens education, organisation of parent-teachers association.

DISCUSSION OF PROBLEMS

The discussion of problems experienced by the student-teachers should be organised with a view to developing knowledge and skills mentioned below :—

Knowledge :—Education as social interaction; the role of human relations in the education of children, influence of social climate on the behaviour of children; factors determining social climate, status role system, nature of group task, general social-physical settings; roles of teachers, students, parents, administrators in Indian and their inter-relationship, satisfactions and dissatisfactions involved in various roles, desirable pattern of human relations from Indian point of view and possibilities of reorganising social life in the school on the basis of Indian value system; principles of reorganisation of group life; training children for democratic living.

Skills :—Formulation of problems as experienced in a particular situation, analysis of problems in terms of human relations, planning a programme of action for improving human relations and putting it into action, making an appraisal of action programmes, drawing conclusions regarding the techniques of improving relations.

Such a programme which seeks to integrate theoretical knowledge with acquisition of practical skills, is bound to catch the interest of the pupil-teachers. Human relations is an area found fascinating by every human being. Besides, it is an area which has to be mastered to some extent, if one is to have any success as a teacher. While this field is the concern of every lecturer in the training college, the lecturer in Educational Psychology would be the most appropriate person to take a lead in initiating a programme for such training. One has also to remember that the atmosphere prevailing in the institution would be a far more effective and better "educator" than any lecturer, discussions or seminars organized by the colleges.

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CHAPTER XXIV

LIBRARY FACILITIES IN TRAINING COLLEGES

(A. K. Mukerjee)

[GONE are the days when a few books or and a few teachers could carry on the task of education. With the immense strides made by humanity in the realm of knowledge, education has to rely on entirely on new methods of instruction—chief of these being, using as many resources and source materials as possible, to gain, check and integrate the knowledge acquired. Libraries and library facilities should undoubtedly form the key-note of any sound system of education worth the name. Our student trainees, themselves brought up on guides, digests and text-books, find it hard to learn how to use a library properly. Sri. A.K. Mukerjee of the National Institute of Education, expounds ably and strongly, the important role of the library and the librarian in teacher-education programme. He deals with all the various aspects of providing adequate library facilities in the total context of the teachers' colleges and their objectives, with a view to improve education as a whole.]

ROLE OF THE LIBRARY

Considerable discussion is at present taking place on the development of the library services of teacher training colleges in India. The college library does not exist as an independent institution in itself. It derives its objectives from the college of which it is a part. If the college library is to be significant, its services, organisation and administration must contribute to the realization of the objectives of the institution it serves. The philosophy and theory of college education which determine college library practices are in a constant process of adaptation.

The library of the training college has to play a role different from other graduate colleges. Here the main section of the clientele consists of the "Would be teachers". They should be given an ideal service which they can later on translate into practice when they go to different schools or colleges as teachers or lecturers or are put in charge of some educational department. A training college library has to cater

to the needs of mature students and has to meet varied demands e.g., from books and journals to models and charts, which the students need for their readings and practice teaching. The content, the clientele and the quality of the staff of the library are different from that of any other college library.

To assess the position of training college libraries in India and the facilities that they provide to the readers, a questionnaire was sent to fifty selected training colleges of India scattered all over the country.

This article is based on the replies received from them. The subjects discussed have been divided under the following headings :

- (a) Planning, organisation and equipment.
- (b) Book selection, scope etc.
- (c) Librarian and the library staff.
- (d) Library hours.
- (e) Library service.
- (f) Issue system.
- (g) Stock verification.
- (h) Bibliography.

PLANNING AND ORGANISATION

If the library is to be constructive and of educational force on the college campus, it is necessary to have a well thought out programme. Careful planning must precede the creation of a new building. The planning of a college library will be different from public or university libraries. The educational programme of a college is the real genesis for a library building and its educational aims and methods must be translated into a programme of building requirements which will help to carry out these aims effectively.

In line with the trend towards planning the building programme around curriculum needs, increasing attention is to be paid to the provision of special facilities for advanced students. Flexibility and provision for future expansion are the keynotes of any library planning. It should not be forgotten that the library is a growing organism.

The replies show that in the majority of cases no well thought out plan had been made, keeping in view the needs of present and future expansion. The sizes of stack rooms and reading rooms of a few standard colleges are given below which will give an idea about the attention so far paid to this aspect by the authorities.

	<i>Stack Room</i>	<i>Reading Room</i>
(1) College of Education, Kurukshetra	60'x24'	Nil
(2) Khalsa College, Amritsar	30'x20'	30'x15'
(3) Govt. Training College, Puddukottai	42'x18'	64'x18'
(4) Dayanand College of Education, Sholapur	29'x29'	Nil
(5) SNDT College for Women, Poona	72'x22'	Nil
(6) Deptt. of Education, University of Aligarh	60'x25'	Nil
(7) Training College, Trivandrum	55'x23'	Nil

Facilities for reading room and periodicals room are not available in most of the colleges and wherever that is available, the need of future requirements have been overlooked. The same room serves as stack room as well as reading room. We get some encouraging picture of a few Colleges like St. Xaviers' College, Bombay, St. Joseph's Training College for Women, Guntur, Central Institute of Education, Delhi and Lady Irwin College, New Delhi.

In the planning of the library building the first task is to set down in definite from the objectives of the library for which the new building is to be designed. An attempt will have to be made to forecast enrolment and curricular trends for the next 15 years or more. Decisions will have to be reached on matters of college policy in relation to the library, such as the centralisation or de-centralization of library service, the support to research projects taken up by scholars, the handling of audio-visual materials etc.

The major steps in planning a new library building may be thought of under the following heads :

- (1) An effort should be made to collect as much information as possible of library buildings-floor plans, description of maker and photographs of recent training college buildings as well as material on workrooms, mechanical equipment, lighting, ventilation etc.
- (2) The next step is to describe the use, location, requirements and approximate sizes of the different reading rooms, workrooms, stackrooms, special study facilities and equipment which will be necessary to carry out the programme.

- (3) Provision for future expansion.
- (4) Complete fireproofing or the use of the best quality of "fire resisting" materials is essential in the library to insure safety to readers and to guard against the destruction of book collection.
- (5) The size of the library must be determined by the space requirements for readers, books and library staff and the space needed for books are in turn dependent upon the amount and kind of services to be given by the library.

The accommodation of readers is usually provided in reference and periodical rooms. The accommodation for advanced students doing individual project work are in carrels in the stack. No training college library which attempts to meet the special instructional needs of advanced students can afford to omit them in future planning. These carrels need not be larger than four or five feet, a space enough for a desk with a single shelf above it and a chair. They should be separated one from the other by a wooden or metal partition. The policy of the college regarding research and methods of instruction are reflected in these facilities, their number, type and use.

A school library and textbook collection along with supplementary reading material should be housed in a separate room of the main library and such a room could with advantage be equipped as for demonstration school libraries appropriate to the various school age ranges. Maximum use could be made of this at all times during school practice in preparation of lessons.

There are special rooms to provide for the gifts of benefactors to exhibit works of art, novel books, pictures, models and to take care of maps, debate material and microfilm. In connection with courses in library science instruction in the use of the library and elementary education, libraries may provide special study corners, lecture halls, textbooks laboratories and juvenile collection books.

The issue counter is the focal point of library activity. It is here that the lending and return of books take place. It is here that the readers consult the card catalogue indexes. More important, it is here that the reader gets his first impression of the library; a favourable or poor one depending on the degree of comfort, the interest and the graciousness reflected within its walls. As most of the training colleges are having one room libraries, it is doubtful whether enough space can be allotted to this lending department. Previous planning is necessary if we have to make this section functioning.

It is recommended that the area of the main library be calculated on the basis of 40 Square feet per reader, assuming that one quarter of students and staff will be in the library at any time. For example a college of 300 staff and students would have a library of $[1/4(300 \times 40)]$ 3000 square feet plus school library and text book collection area, plus rooms for administration and stack room. The main library and reading room should have a minimum height of 15 feet to ensure adequate ventilation, less noise and to provide for inexpensive future expansion of stock by means of adding a gallery.

FURNITURE AND EQUIPMENT

There is great need for careful research to determine specifications for the various types of furniture and equipments needed in the college library. Flexibility in furniture is as important as in construction and interior arrangement. Variation to meet the need and comfort of the reader in different types of reading rooms are reflected in chairs of different weights, design, height, type of arm rest etc.

Tables designed to fit the particular needs of different reading rooms and finished to harmonize with the interior designs and decoration are replacing the conventional library reading tables. Sloping tables are necessary in reference, document, periodical and reference rooms to facilitate the handling of special types of materials. The monotony of long rows of matched tables in reading room should be done away with by placing tables of different sizes and shapes and by an informal arrangement of furniture in the reading room.

All the legs of the tables and chairs should be fitted with rubbers to lessen noise during the time of their movement. The shelves may be made of good teak wood and the height should not exceed more than six feet as that will be an impediment to easy consultation. Due attention must be paid to the aesthetic aspect of library furniture.

BOOK SELECTION

A plentiful supply of good and useful books is the College libraries' principal stock in trade. It is the core around which sound teaching and other extra curricular activities of the college take place. For these reasons, book selection and book acquisition demand special attention in training college. Here the importance of extra-curricular activities is given equal importance with that of other subjects within the curriculum. Here lies the difference in the selection of library books of training colleges with that of other colleges. Books on music, dance, drama, art

and craft, games, photography, library management should get due importance in the overall collections of the library.

The factors that influence the acquisition programme in any college library depends upon the size of the college. There is a direct relation between the size and the number of volumes added annually to its library. Any college with larger enrolments will need many more duplicate copies of books with both for assigned reading purposes and general reading. The trend is away from teaching by the text book and many of the newer fields in the social sciences where library materials are used most heavily, it is not possible to use a single text even where this desirable. The result is the students are referred to parts of many books for more than they could be asked to own or even co-operate in buying. If the college library does exist to serve the would be teachers and to implement the primary business of teaching within a specified curriculum, it seems obvious that it must supply a liberal provision of class and stack duplicates as a first study.

The nature of the curriculum has a great bearing on the book stock of the college libraries. Besides any development of one department or group of departments over others will have its reflection in the book holdings.

Other factors affecting books selection are the physical nature of the library building, the nature and activity of faculty interests, the specific condition and the precedents existing in each institution and the amount of funds available. All these may vary according to the standard of the college.

In any growing and changing college, there will of course be demands to fill in the gaps in the curriculum. Besides there will be demands for research, however, small in comparison to that in the universities. There will be demands for recreational or extra curricular reading, for special collections or even rare books. But none of these should be filled until the first two, for teaching and general reference are met.

There is need for close cooperation between the librarian and the members of the faculty in book selection. In order to administer selection of books effectively, the librarian must have a thorough knowledge of the purposes of the college, of the curriculum and of the integration of the library with instruction. He must be a person of broad knowledge, trained in the methods of evaluating books and must be willing to spend time and effort to keep informed on the current output.

The acquisition of periodicals comes next in importance to the books. Its collection in a college library is made largely on the advice of a group of experts represented by the faculty. The librarians contribution is necessarily limited to a selection of the more general periodicals for recreational and cultural reading and even here the advice of faculty members should be requested and considered.

In our colleges, the annual grants for the purchase of books and periodicals is not in proportion to the number of borrowers and consultants. The following table will give an idea in this regard :—

<i>Name of the College</i>	<i>Books</i>	<i>Periodicals</i>	<i>Binding</i>
1. Khalsa Training College, Amritsar.	Rs. 500/-	Rs. 350 -	Rs. 50 -
2. Meerut College, Meerut.	Rs. 4000/-	Rs. 500/-	Nil
3. Govt. Central Pedagogical Institute, Allahabad.	Rs. 2750/-including periodicals and binding.		
4. S.N.D.T. College, Poona.	Rs. 2500/-	Rs. 250 -	Rs. 250/-
5. Govt. Training College for Teachers, Jullundur.	Rs. 1000 -including periodicals and binding.		
6. St. Xaviers Institute of Education, Bombay.	Rs. 2,000 -	Rs. 699/-	Nil.
7. Central Institute of Edn. Delhi.	Rs. 15000 -including periodicals.		Rs. 1000-2000
8. Lady Irwin College, New Delhi.	Rs. 12000 -	Rs. 1500 -	Rs. 1000/-

From this table we can get a clear picture about the meagre grant for the purchase of the books, periodicals and the amount spent on binding of these. No provision for binding is made in most of the colleges. Except a few colleges like the Central institute of education, Lady Irwin College, New Delhi, the picture which we get from other colleges is very discouraging.

No library can function adequately without funds commensurate with its needs, especially as regards books, periodicals and other aids. To make a good collection, there should be an increase in the annual budget grant, the minimum being Rs. 10000/- for books, Rs. 5000 - for periodicals and Rs. 1000/- for binding in view of an enormous rise in the cost of books, periodicals and binding. The Association of Teachers and Colleges and Departments of Education, London, recommend that the total collection of a library consisting of books, periodicals, charts and related materials should be 20,000 volumes.

The basis of the stock must be a good general library with a representative collection of books on all subjects taught; this should include a selection of foreign works in translation or original, particularly in view of the growing interest in comparative studies. Background material not directly related to the curriculum plays an important role and must therefore be provided and this can only be possible if there is provision for adequate budget grant.

LIBRARIAN AND THE LIBRARY STAFF

Since the library programme is primarily concerned with teaching and learning with adopting the library to instructional needs and with improving student work and achievement it is important that the staff have a thorough academic training, technical library training and an understanding of the problems the teachers and students encounter in pursuing these studies. To be able to appraise the objectives of the college programme, to study the needs of courses and to translate the knowledge and procedures of library work designed to further the ends of instruction requires qualifications of personnel as exacting as those required for teaching.

The personnel of the college library is composed in the main of three types of persons according to the type of work they do. There is the technical group of professionally trained librarians who handle the organisation and preparation of materials for use. Upon their ability to organise materials depends the success of the second group, the librarians who are directly concerned with personal services in making the library an effective instrument in teaching. A third group consists of the clerical help.

The effective participation of the college library in the instruction of the students in the use of the library books and bibliography, in defining and carrying out the objectives of the college in collaboration with the faculty and in extending the use of library materials in education requires a well qualified and numerically adequate staff of the trained librarians. The position of the staff in library is pivotal. The student body, faculty and outsiders are very sensitive to its oversight, judgement and enterprise.

The position of librarians in colleges in India is still far from satisfactory. No proper recognition has been given to this profession which can be judged from their low salary scale which ranges between Rs. 40/- to Rs. 210/-. It is only in a very few colleges where the salary scale of the librarian has been brought at par with other teaching staff. The librarians job is no less exacting than that of the lecturers and if their

pay scales are not improved it will be very difficult to attract well qualified persons to this profession. It is the librarian who oils the intellectual machine of a college. The old maxim that the librarian is the caretaker of books has given place to the maxim that the librarians job in a training college is at the level of teaching. When a librarian assembles materials for students use, directs a student in the use of materials, he is not merely a service officer but one with definite and positive duties in the field of instruction. The librarian in another way has been involved directly with the teaching job as in many of the training colleges the subject of "School library Organisation and Administration" has been incorporated in the regular curriculum.

The modern college exacts higher qualifications of its librarians than formerly. It no longer considers the possession of a B. A. degree and completion of one year of training in a library school sufficient equipment for the librarian who is to become a successful administrator, a wise counselor in the use of books and a force in shaping college instructional policies. It insists that the libraraian must be a person of imagination and initiative that he must have a sound understanding of library administration and some subject field and that he must know how to relate the use of library to the educational programme of the college. The emphasis in this quotation is on the training, progressiveness and mental attainments of the college librarian. In order to maintain his position in the community of scholars the librarian must himself qualify as a scholar. He must be broadly acquainted with the manifold fields of human knowledge. On the other hand, the way in which the librarian is regarded by the faculty and the importance that is given to him in the college will greatly influence the success which he carries on his work with students. Is he regarded simply as a caretaker of the books, as a technician, as an administrator or is he regarded as a helpful friend and adviser as a librarian-teacher and as a leader of a staff competent and willing to aid the teacher? In a librarian who evidences the second set of qualities there is a forthrightness which inspires the confidence of teachers. They will respect his suggestions and encourage the students to seek his help and advise.

Formal status and appropriate ranking are important factors in raising the level of staff efficiency, quality and morale. But formal listing with other faculty members, will not solve the problems of library personnel unless status is accompanied by full faculty privileges. These include comparable provision for salaries appropriate to training and responsibilities tenure and retirement provisions, membership or faculty committees,

social privileges, and opportunity for advancement and study. Of all these various aspects of faculty status none is more important to the librarian than salary. In almost all colleges there is need for strengthening the library staff and this can be accomplished only by making available additional funds for increasing salaries.

The importance of the library in the college should be reflected in the position of the librarian. The status accorded to the librarian plays a vital part in determining the value of the library to the college.

Besides, the libraries in India are under-staffed. Not only that many of the training colleges are carrying out their library work with untrained librarians but they have not been given clerical assistance in many cases. If we are to provide proper service to readers', a training college must have a few graduate assistant librarians who are trained in librarianship to assist the librarian in the library work besides atleast one clerk, two attendants and one peon in the library.

LIBRARY HOURS

There is considerable variation in the number of hours that college libraries are kept open for the use of students and faculty. The size of the staff, the number of rooms to be serviced and the student enrolment are the controlling factors. The information supplied by the training colleges in India show that in some colleges the timings are from 9.00 A. M. to 4.30 P. M., 9.00 A.M. to 5 P.M., 9 A.M. to 11 P.M. with a break of 2 hours. For the consultants the existing timings of our training colleges are fairly good. On an average 50 hours per week will be an ideal arrangement.

LIBRARY SERVICE

Library service includes technical services, well classified and catalogued library collections, abstracting and indexing services, reference service, inter-library loan etc.

The replies received show that nearly all the colleges have classified and catalogued their collections according to one of the accepted schemes. But the total staff strength is so poor that it can be safely presumed that new books cannot be released for issue in time. Releasing new books for issue within the shortest time is the index of a good library. As regards abstracting, indexing inter-library loan not a single college has replied in the affirmative. These services are "must" for any post graduate college—particularly in a training college in view of the introduction of B. Ed. and enrolment of Ph. D. students in the college.

Last, but not least, the paucity of staff tells upon the reference service of the library. The meaning of reference service is "interpreting the collections of the library to the readers in case of their difficulties in the right personal way." It is the key to all other services. For this we require a special trained person. In a training college the service must be given top priority over others. It is his job to make the readers feel comfortable within the library so that they can ask questions freely. The standard of service depends to a large extent upon the quality of reference service rendered.

The system of inter-library loan is also not in vogue in India—particularly among the training colleges. The authorities still care more for the safety of the books rather than their proper utilisation. For higher studies people do need the help of other librarians for materials which are not available at a particular library or in libraries at a particular place. Then the need for inter-library loan arises. The Central Institute of Education has had been doing this service since long and has been helping a host of research scholars who seek help of this well equipped library from time to time. They derive tremendous satisfaction from this service. Every training college keeping in view the safety of books should encourage this service as soon as possible. If necessary from time to time either the administrators or the librarians of different training colleges of India can meet together and discuss various aspects of library services and other technicalities of library work. So far there had never been a meeting of this kind on all India basis and it will be better if this meeting is made an annual feature like meetings of other Departments.

No library today can show all the materials its users will need from time to time but an efficient library can provide its resources to other libraries. In England during the last 30 years a nation wide inter-library has made it possible for most of the country's resources to be made available to any reader. In addition other regional and cooperative schemes exist between public, university, college and industrial libraries. Training Colleges in India must cooperate with local public libraries in addition to the university and research libraries.

Another anomalous feature of some of our training colleges is that many of them do not possess an independent library of their own. The staff and students have to travel up to the university library to which the educational section has been attached. This is a sheer waste of time and energy. If the readers do not get the materials they want ready at hand, their projects may cry halt in the mid way.

This practice of centralisation at the University level should be discouraged as far as possible. Every college should have a library of their own always available within the premises of the college for consultations, home reading and browsing.

The period of loan may be increased from 7 days to 14 days as it has been found that due to many extra curricular activities, assignment and lesson plans the students do not find always much time either to devote in the reading room. When the period of loan is kept 7 days it has been experienced that the number of defaulters who do not return books in time increases to a great extent. They are prepared to pay fines to any extent to take advantage of important books. Besides, as the demand for text books is more than others the number of copies should be comparatively increased. Otherwise the students tend to hide books so that no body else could take advantage of the particular book. Some time it also happens that some students form a group and a book or a particular series of books rotate among that group for a considerable of time.

ISSUE SYSTEM

Some of the college have introduced the ticket system and are carrying the job of issuing books successfully. This saves time and makes the charging and discharging work most scientific. In every training college the system of issuing books in tickets may be introduced if not done so far. Issuing of books in cards or registers is all cumbersome and not scientific ; because lot of time is wasted in the process of writing of the particulars of books, the borrowers etc.

STOCK VERIFICATION

The replies reveal that almost all the colleges are having annual stock taking. A few colleges are having this work twice a year. For the convenience of the readers, the students stock and outsiders, the appropriate time for this work in a college will be the summer vacation when usually the colleges remain closed and the demand on the library services is at its lowest. No other period of the year should be chosen for this work as that will be a hindrance to the work of all the consultants.

It is very difficult to deal with all aspects of training college libraries within this short article. An effort has been made here to touch upon the main aspects of library work and the methods on which the daily work should be carried out so that the staff and students may get the maximum facility in the pursuit of higher studies.

According to the present conditions, it may not be possible for all the libraries of training colleges spread out throughout the country to be brought to the level of efficiency suggested in this article under various headings. But it can be safely predicted that if the administrators who are at the helm of affairs of training colleges take some interests in the development programme of libraries, it will not be long before we can expect to see a different picture of this neglected department.

The role played by the training college librarians in the life of the students can be compared with that of the teaching staff—although, the medium through which the role is played may be different. The quality of the library service depends on the status that is given to the librarian. If the training college library has to train the “would be teachers” on a proper level the role of the library in their lives cannot be minimised. A better building, well qualified, well paid librarian, reasonable budget allocation, support and cooperation of the administrators and the faculty members are necessary if we want to bring the training college libraries to the level of efficiency for which they are intended.

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CHAPTER XXV

THE ROLE OF EXPERIMENTAL SCHOOLS

(K. S. Yajnik)

[THE apathy and relapse of trained teachers into traditional ways of teaching, is the despair of all training colleges in our country. The old teachers quench the eager enthusiasm of the few fiery young spirits who enter the profession with the cynical remark, "See what happens in two years" and lo ! that which they prophesised does happen and provide them with gloomy satisfaction. Such prophets of doom and sorrow are bound to be dampened, if not quashed, by the accounts here given by Sri. K. S. Yajnik, of the M. S. University of Baroda. He outlines the activities of a few selected schools, based on personal contact and first-hand experience. It gives the lie direct to those who say that the social milieu and political atmosphere weigh too heavy for the educationists to accomplish much. The few educational institutions listed and described here should form becan lights, inspiring and encouraging the novices who enter the Temple of Learning, to guide the young people who would soon be entrusted to their care.]

EXPANSION OF SECONDARY EDUCATION

Expansion of Secondary Education has been comparatively rapid and out of all proportion during the last two decades. With the dawn of Independence and the popular awakening to the responsibilities of democracy, there is nothing strange about this expansion, except that those who are in charge of it could not foresee it or did not properly plan for it.

If we were to mention only one great difficulty in the way of fast expending Secondary Education it is the paucity of competent teachers. Teachers can neither be produced nor trained overnight to handle more children or tackle new problems. Even if we were to concede to the training colleges that any-body could be trained into a teacher (which they seem to believe), it has become difficult to get enough men to be trained for the profession. The choice therefore is between allowing

more and more incompetent teachers into the profession, and developing better techniques of teaching (and learning) which should assist the few competent teachers in arresting the worsening situation. In other words, the educators must choose between incompetent teachers and improved tools in the hands of able teachers. One of the answers to these several problems of our secondary education is the Experimental School.

TYPES OF SCHOOLS

Historically different types of schools had been raised to solve the problems of the day. The purpose of the early secondary schools was, as it were, the spread of English through English, a characteristic which can be said to be still dominating the secondary school of our day. Similarly in order to meet the criticism that education was too bookish, academic and wasteful the Hartog Committee as early as 1929, recommended "diversion of more boys to industrial and commercial careers at the end of the middle stage". The report of Messrs Abbot and Wood suggested a complete hierarchy of vocational institutions parallel with the hierarchy of institutions imparting general (academic) education. So came into existence the new institution called the 'polytechnic'. Several schools in this way have been established for definite vocational pursuits catering to the aptitudes of the students concerned. Basic Schools, or higher secondary schools, intermediate colleges or technical institutes have all come up to solve the educational problems of the day—problems of curriculum or examination, of methods of teaching or training of teachers. The Experimental school in the same way has a purpose and a mission at the present moment.

THE PROBLEM

The present moment is critical—more critical because it inherits the unsolved problems of the past and faces new problems never conceived before. The twin problems of co-education and religious (and/or moral) education have remained unsolved because probably we do not wish to burn the fingers. The thorny problem of Language teaching is becoming more complex just because we do not wish to try out and demonstrate one or the other side of the coin. We are only *theoretically* debating whether English should be taught for four, seven or seventeen years. In the same way one can still ask after years whether a teacher can really be trained at all; or whether it is possible to analyse the causes of indiscipline and prescribe the remedies (or punishments) corresponding to each such cause so that indiscipline could be completely eliminated. It is hardly realised

that discipline is a function of the methods of teaching and both go together. These are the old problems still unsolved, ever throwing a challenge to the intelligent teacher and the research worker. To this must be added the new set of problems created by the expansion of education out of all proportion : by the new aspirations and ideals of parents and children, by new aims and purposes of education, and on account of revolutionery changes in the tools and techniques of teaching and evaluation, as a result of research.

SCHOOLS AT THREE LEVELS

The experimental schools are mentioned in the Secondary Education Commission Report and are described as *selected schools* which have been released from the usual Departmental regulations about curriculum, methods and textbooks and are given the freedom to work on new experimental lines¹. Of course the experimental schools will have to be *selected schools* only because all schools cannot, and cannot be allowed to, play with the curriculum or the methods of teaching.

We can think of three categories of schools: adventurous schools which are never satisfied with the existing order and are always ready to look for new ways of doing things. Never self-complacent or indifferent to research; ever alert to examine and understand the situation, these adventurous schools will be guided by only convictions. These are really experimental schools. They are bound to be a few and small schools. They will however be neither too small nor too large, and for all experimental work have to have two to three divisions of all classes from one to eleven or twelve. The strength will never be over 600 to 800, so that every pupil will be individually known to the headmaster. To the second category belong those schools which are not adventurous and daring enough to explore new lands, but are certainly progressive enough to make use of what is offered by the experimental schools. Though they have been long in the field and have gathered enough moss, yet they are not inert or too much in the rut to be able to get out of it whenever the occasion demands. These may be old and large schools, sometimes with over a thousand pupils. By all measures, they will be excellent salesmen of new ideas in education.

In the third category will be those schools which are newly started : financially weak and numerically very small, they must be struggling for existence and fighting for recognition both in the society and the educational world. They have neither established any standards

1 Report of Secondary Education Commission pp 116

nor set up traditions one can rely on. These schools will be in very large numbers at present, because of the great demands for education every where, even in the innermost core of the unapproachable Indian villages.

ROLE OF THE DEPARTMENT

It is the first category of schools to which will be given complete freedom from departmental control in matters of curriculum, methods of teaching and textbooks. In case of these schools the Department of Education will act as both the source of encouragement and the carrier of new ideas from these schools to others. These experimental schools will be the pioneers who will take risk and carry out research, so that education may improve every-where else.² If a few progressive schools are established in every state where "the Commission Hopes "experienced teachers would be free to work out an improved syllabus and methods of teaching and discipline, they might in due course, help to leaven the whole educational system.". At the other extreme will be the newly started small schools which will be continuously under the supervision and observation of the Department. They will need both protection and guidance like infants. In-between will be the long-established large schools financially strong enough to stand on their own but academically very old and therefore sometimes too rigid and too much burdened with traditions to change their old ways of doing things. It is here that the Department has to be perhaps most active. It should not only allow them the necessary freedom to try out syllabus, methods and evaluation techniques and all the rest, but often times *has to persuade them to get out of the routine and security which comes to them from long tradition and finance*. If the Department is able to get them out of the inertia they can quickly gather momentum and work wonders. But should the Department fail to influence these 'strong' schools, they are also likely to use their strength in maintaining the old order and making real reform impossible. While therefore the Department should encourage and assist the small experimental schools in undertaking experiments, it should also work consistently and strenuously to see that the large old schools take the lead in spreading these new ideas, try them out in different situations to demonstrate their importance, and create an atmosphere which the newly created schools may be able to catch without much effort.

² Report was published in the Progress of Education, Poona

NATURE OF EXPERIMENT

What is then the nature of experiments these pioneering schools are expected to undertake? Experiment demands on the part of the teacher open-mindedness or readiness to give up old, even long-established, concepts and devices, and courage to try out new ones. Whenever therefore a school or a teacher is trying to deviate from the routine in say the organisation of its teaching units or methods of teaching and evaluation; or in trying to go to the root of the problems of indiscipline instead of only suggesting palliatives by way of punishment; or in attempting a new teacher-parent-pupil relationship then the school or the teacher is undertaking an experiment we can say. In a school once the pupils went on strike because they saw some groups of labourers on strike from the factories, going in procession. Most of the schools would accept this as routine and ignore it, and would continue to teach the pupils when they returned the next-day without making any reference to the strike. Some headmasters and teachers might punish or rebuke the 'ring leaders' for leading the strike and misleading the crowd and creating disorder. But there was one school in the area that was genuinely disturbed by the strike, and arranged a discussion first with the students council and later with the general body.³ The discussion could point out to the pupils that strike is not the only way or even the right way of showing sympathy; that some sections of the society like hawkers or day-labourers cannot afford to go on strike otherwise they may have to go without meals; that if students abstained from study and spent the day in the public park or picture-house the strike had only demoralised them. This school now reports that since then, there has been no strike at all and whenever an occasion arose the students council always resorted to discussion instead of unilateral action. It can be truly said that the school was 'performing' an experiment, and in the light of later experiences, a successful experiment.

An inspector of schools had developed the habit of asking the school, every time he came for inspection, 'what new experiments were performed.' It is necessary to emphasise that even a single experiment in education requires sometimes years before anything can be said about it or could be deduced from it. The construction of a new test or building up of cumulative records or trying out the project-way of teaching, even preparing assignments for self-study or remedial work will require years of patient and sincere labour on the part of the teachers and schools.

3 See University Education Commission Report

SOME EXPERIMENTAL SCHOOLS

Gujarat can certainly be proud of some typical experimental schools : outstanding among them the Saraswati High School near the Railway Station, Ahmedabad ; the Shreyas High School, Ahmedabad ; Jeevan Bharti of Surat ; Avidha High School in the Broach district ; Jeevan Sadhana and University Experimental School both at Baroda. These are only a few samples within my limited knowledge : there must be many more working at different levels of experimentation. Each of these schools has, I believe, a character of its own ; the *Railwaypura High School* for a long time has been struggling to adapt education to the needs of workmen's children who constitute the bulk of the population. Nay—the school struggled hard to provide the best of education under great financial stress and in spite of apathy and indifference of parents who were mostly workmen and therefore poor, illiterate and often too busy to attend to the education of their children. The school for their children therefore was not only a place of formal learning but an all-time shelter where they ran during leisure hours for indoor games, newspaper reading, drawing work or carpentry. The building when I saw it was not attractive at all and most of the so called extracurricular activities were carried out in the open and in corridors but the children looked extremely fond of the school : the children here liked to spend more time at school than at home, whereas in the usual schools, we all have experienced, children are just anxious to rush out of the school as quickly as possible after the 'periods' are over. The secret of this unique success, as I found it, was in the dedication of the principal and the teamwork of its staff all to a purpose.

The *Shreyas High School* of Ahmedabad stands at the other extreme in the sense that it is completely equipped with all facilities and is wanting in nothing. The dream of an individual, the school has an excellent natural setting and lays special emphasis on art and craft. Here is the school that is trying to show how learning is through living, how the wall between the curricular and the extra-curricular can be broken down, how the students can be made into self-reliant, responsible citizens, how examination instead of becoming a terror to fail the students can be made into a diagnostic tool in regular use for the progress of the pupil. If the school has failed to attract large crowds of pupils to its portal, the fault is of the parents and the pupils and not of the school because they have failed to appreciate the high ideals for which the school stands.

Jeevan Bharati of Surat has equally failed to capture the public eye. In both Ahmedabad and Surat there are over-crowded schools which are no better than coaching classes to which pupils rush with the only purpose of passing an examination and obtain marks which could be an easy entrance to the college. These schools, teachers employed by these schools and the marks pupils obtain have little to do with real scholarship or development of useful study-habits or growth of an inquiring mind. *Jeevan Bharati* would not submit to this situation as normal and has started a struggle for the recognition of its ideals and practices. *Jeevan Bharti* is trying to explore the potentialities of audio-visual techniques (a dominating force in education now-a-days), and is successfully attempting to develop evaluation tools and cumulative records of pupils : something which the average school may not be able to attempt, or may not like to, because it is not of 'practical utility.'

Avidha high School stands out as a bold experiment in converting every village high school into a centre of rural reconstruction. It is a small agricultural high school where pupils learn not only better agriculture but extend the school into every house of the town of Avidha: the School takes care to supply better seeds to the farmers from its own farm; attends to health of the town and sprays DDT; approaches the Collector on behalf of the farmers for their ration of manure etc, arranges exhibitions, filmshows and cultural programmes in order to attract the town into the school and has been so successful in lifting the tone of the whole town that the people in a real sense feel the school belongs to them and they belong to the school. Who will not be proud of such a school which turns out young citizens so responsible and conscious of their duty to the society? How rapid-ly can the face of rural India change if such schools are protected by the Education Department and held out as models for all small towns to emulate?

Jeevan Sadhana of Baroda is a small school financially weak but very popular with parents on account of its entirely new orientation. Bold and ambitious, the young staff of the school have launched several projects simultaneously. Most outstanding among them are two : firstly that parents be involved in their children's activities in a place where high schools generally complain that parents do not attend parents meetings; and secondly, promotion from class to class must depend not on one final written examination only : day-to-day progress of the child and activities ability, both for oral and written work, should determine the promotions.

The irresistible strength of the school is its genuine trust in teachers⁴—a characteristic so indispensable for real reform of education, yet rarely developed in most of the schools of the day. The school occupies the old stables of the Gaekwar, but it is difficult for freshers to secure admission to its popular classes. It is the only school perhaps where real democracy obtains among its staff, as the principal is appointed in rotation.

The University Experimental School as its name implies was primarily established as a laboratory of the Faculty of Education and Psychology for trying out its theoretical findings and demonstrate to the schools for the area how new tools and techniques could be used with success. There were for example *discussions* in the Faculty on what the project method is and how new-type examinations could be used; but it was for the school to *try out* how the project works in practice or how far the teachers are able to construct and implement the new tests. The University Experimental School has done during the decade pioneering work in several aspects of educational reconstruction and has been responsible for spreading among schools these new ideas through reports published in the Journals,⁵ and participations in Seminars and Workshops, thanks to the Extension Services. The University School showed that even in the city of Baroda parents meetings could be made profitable. The idea of assignments and projects was sold by the school, through the extension department, to the schools, throughout the districts of Baroda, Broach, Surat and the Panchamahals. The work of the School on cumulative records⁶ still remains unique and monumental. The reorganisation of the social studies syllabus into an integrated one was first tried out by the University School, and activities were insisted on as part of the syllabus. Several Extension Departments and schools all over Gujarat will ever be indebted to the Baroda University School for placing into the educational market the social studies in the new way. The University School could successfully demonstrate to the State education department that a librarian is not a clerk but a teacher. He should be the pivot of the academic life of the School and therefore a full-time qualified teacher. If one were to mention only one defect in the academic work at school in general, it is the neglect of reading ability of pupils. The University School took up

4 Refer to Education Quarterly (Government of India) for reports on the Project-way, Promotions in School, Rural-Reconstruction Camps. Also Progress of Education, Nootan Shikshna etc.

5 (1) On Cumulative Records and (2) The Project-way in Schools both by K. S. Yajnik are published by the Extension Department, Faculty of Education, M. S. University of Baroda.

6 The Secondary Education Commission Report : pp 116

this challenge and the library teacher in cooperation with other teachers took it up to study and remedy the situation.

THE FUTURE

The few schools mentioned above are only illustrations to show what an experimental school is and what is possible through it. These few schools have vitalised school-life and have created an atmosphere in which the teachers do not meekly teach the syllabus as they did before, but raise questions and struggle to solve them. This new attitude of teachers, the attitude of questioning the validity of blindly accepted formula marks the beginning of a new era in education and the experimental schools are the standard-bearers of this new era. They are the hope of the future and must "receive due encouragement at the hands of the State and Central Government." Nay, many more of such experimental schools be tried out in all parts of the country; they may be closely watched but must be liberally financed.

There is little time to be self-complacent. The old problems of co-education and moral instruction, the old wall between the curricular and extra-curricular; the old theories of teacher training and the pupil discipline—still firmly hold the ground in large number of our schools. The hope of the day is the Experimental School.

CHAPTER XXVI IN-SERVICE EDUCATION OF TEACHERS

(Dr. G. Chaurasia)

[THE Directorate of Extension Programme for Secondary Education (DEPSE, for short) been rendering yeoman service in the cause of better teachers and teaching, by focussing attention on continuous learning by teachers, while teaching. It does provide extensive programme of workshop, seminars, symposia, etc., which have helped at least to bring together educators from the four corners of the country, which in turn, has led to cross-fertilization and fructification of ideas, concepts and new thoughts. Dr. G. Chaurasia, of the Regional College of Education, Mysore, narrates here briefly, the history of In-Service Education in India and reports its achievements in terms of the impact on Secondary Education. The detailed and glowing account of the pioneer work accomplished and envisaged by DEPSE, affords us a glimpse of "what is", while beckoning us on at the same time, to "what should be".]

TEACHER'S ROLE IN NATION-BUILDING

It is universally accepted that the quality of a nation depends upon the quality of its citizens. The quality of the citizens depends in a critical measure upon the quality of their education. The quality of their education depends upon several factors—home, inherited traits and attitude of parents; financial support, buildings, books and equipment in the schools; curriculum and methods of instruction. But the most significant factor is the quality of the teacher. Undoubtedly, the quality of the teacher is determined by the provision of adequate pre-service and in-service education. There was a time when it was believed that anybody could teach. Perhaps everybody did teach in the far distant past of human civilization. It is a fascinating story how, in course of time, teaching became a formal process and was entrusted to a new species known as "teacher". The belief that everybody could teach countered the inevitable end although the process was painfully slow. Simultaneously, teacher education has slowly but steadily emerged as an important field of human activity. Surely, in the short history of teacher education there have been calculated attacks

by philosophers and prophets who have proclaimed that teachers like poets are born not made. Such attacks have temporarily slowed down development of teacher education. But the enormous expansion of education in all nations necessitated a vast army of teachers and dispelled the notion that 'teachers are born not made. An overwhelming majority is now convinced that the truth lies somewhere between the two extremes—anybody can teach; teachers are born not made. Teachers education is now universally accepted as the first charge of a State. All nations are spending considerable effort, energy and money on the pre-service and in-service education of their teachers. Training colleges have been entrusted with the noble task of training teachers who are able and willing to educate the new generation for a new world.'

✓ The latest discovery which is responsible for sweeping changes in all procedures and practices in the field of Teacher Education is the conviction that teacher education cannot be imparted in one instalment. Nobody subscribes to the philosophy that a person can teach effectively for the entire period of his service after completing a course of teacher education for one, two or even three years. The belief is gaining ground that a teacher must be a life-long student. Teacher education never ends. The good teacher goes on learning all the time, keeps abreast of all the new developments in his field and endeavours to feed his students from a fresh running stream and not a stagnant pool of knowledge.

JA few pioneering colleges of teacher education and some dynamic State Departments of Education have organised refresher courses and seminars in accordance with such ideas and recommendations made by various committees and commissions. The Secondary Educations Commission boldly recommended that the teacher-training institution should accept their responsibility for assisting in the in-service stage of teacher training. Among the activities which the training college should provide or collaborate are : (1) Refresher Courses, (2) Practical training in workshop, (3) Seminars and professional conferences, (4) Short intensive courses in special subjects, (5) Staff should serve as consultants to schools conducting some programme of improvement.

ESTABLISHMENT OF EXTENSION SERVICES DEPARTMENTS

In spite of such specific recommendations in-service education was regarded as a new fad by conservative educational administrators. It is remarkable that while this new fad was being discussed in most places and ridiculed in some, the Union Ministry of Education took the first decisive and commendable step by establishing twenty-four Extension Services

Departments in 1955 and thirty Extension Services Departments in 1957.

The primary aim of establishing these special Department in the selected training colleges is to keep the teachers abreast of recent developments in educational theory and practice, guide them in the solution of class-room problems and to develop their teaching efficiency and professional competence. Another vital aim of the Extension Services Departments is to bring the training colleges into living contact with the secondary schools and help them to provide a dynamic programme of teacher education. A special officer, called the Co-ordinator, is appointed in each Extension Services Department to formulate activities and serve as a link between the training college and the secondary schools. The principal of the college is exofficio Honorary Director of the Extension Services Department. These are being given ample support by the union ministry of Education, the Technical Co-operation Mission of the U. S. A., and the State Governments.

IMPACT OF EXTENSION SERVICES

What then have Extension Services accomplished in the five years of their existence? About 8000 secondary schools have been covered in some form or other. More than 50 per cent of them have felt the impact in a fair measure. They have started using audio-visual aids class-room teaching. Schools have started Science Club and Experimental Projects. They are keeping abreast of new methods and techniques through books and educational journals. They have discovered that various types of consultant services are available in Colleges of Teacher Education. The Colleges of Teacher Education, in their turn, have come in real contact with the Schools. They have descended from their "Ivory Towers" and are striving to relate their programme to the needs and problems of schools. They have organised Workshops, Seminars, Short Courses, Exhibitions and are buzzing with activity round the clock. They have brought out scores of publications on the entire range of problems that our Secondary Schools are facing. The State Departments of Education have discovered that the Colleges of Teacher Education are their veritable Brain Trusts and their resources must be utilised for the expansion and reconstruction of Secondary Education. Even the cynic in his comfortable corner is disturbed and impressed with this record of achievements.

In order to assess the impact of Extension Services on the secondary schools and the Training Colleges and the A.I.C.S.E. and D.E.P.S.E. devised several methods. In the first place, each Extension

Services Department sent a monthly report of its activities. These reports were examined and the most significant items of work were reported in the Extension Services Newsletter—an important feature of our monthly journal 'Teacher Education'. Secondly, the Director and Field Advisory Staff of A.I.C.S.E., D.E.P.S.E. visited the Extension Services Departments and the associated schools to assess the impact of Extension Services, study the problems and provide guidance on the spot. The T.C.M. Consultants and members of the Ohio State University Team also visited the Extension Services Departments for similar purposes. Thirdly, the entire country was divided into five zones.

North-Western Zone : Panjab, Rajasthan, Delhi, Jammu & Kashmir.

Northern Zone	:	Uttar Pradesh, Madhya Pradesh
Eastern Zone	:	Assam, West Bengal, Bihar, Orissa
Central Zone	:	Maharashtra, Andhra Pradesh
Southern Zone	:	Madras, Mysore, Kerala

Annual Zonal Conferences were organised in each Zone for discussing the problems of common interest, sharing of experiences, and reviewing the progress. The participants presented their annual report of work, problems and difficulties, and suggestions for the improvement of Extension Services. These Conferences were extremely useful because the participants pooled their ideas and devised new ways of strengthening the Extension Services.

Fourthly, in November, 1957, an All-India Workshop of all Coordinators was organized in New Delhi for helping them to plan their programmes. In addition to the discussion, the workshop provided intensive training to the participants in the manipulation and use of audio-visual equipment supplied to the Extension Services Departments. This All-India Workshop was followed by a series of workshops in the different zones for training the Coordinators and the technical assistants in the use of audio-visual aids.

Fifthly, the Extension Services Departments regularly published bulletins, newsletters and booklets on important aspects of education. These publications contained brief accounts of worthwhile experiments undertaken in the associated schools and reported the various activities of in-service education, organized by the Extension Services Departments. It is estimated that by the end of the Second Five Year Plan, the fifty-four Extension Services Departments have brought out nearly 1,000 publications dealing with all aspects of Secondary Education.

Lastly, visiting teams were sent to 15 Extension Services Departments to assess their work. These teams consisted of experts who visited the Extension Services Departments for ascertaining the impact of their work on the teachers and the secondary schools. On the basis of this assessment, it has been observed that in general, the work of the Extension Services has brought about a remarkable change in the outlook of the participating teachers. The secondary schools and the training colleges have discovered a number of new areas in which they can cooperate for the all-round improvement of secondary education.

SEMINARS AND WORKSHOPS

In addition to the establishment of fifty-four Extension Services Departments, another significant activity of the A.I.C.S.E. and the D.E.P.S.E. during the Second Five Year Plan has been the organization of a number of all-India and State-Level seminars and workshops. The main purpose of these seminars and workshops was to bring together headmasters of secondary schools and the inspecting officers who were responsible for the supervision of secondary schools. In these workshops and seminars, the participants had opportunity to discuss all the problems related with the reconstruction and expansion of secondary education in the light of the Report of the Secondary Education Commission.

These seminars and conferences have yielded some satisfactory results. Among these the following deserve special mention :

1. They brought together experienced co-workers in the field of secondary education for the purpose of studying problems of common interest and of examining certain practical solutions to these problems in the light of the recommendations of the Secondary Education Commission.
2. They enabled the participants to break away from the monotony of their daily routine and to gain in a congenial atmosphere fresh experiences which would help them to improve the quality of their work.
3. They encouraged some alert and imaginative headmasters to plan out worthwhile projects which could be implemented within the existing framework of the school programmes.
4. They developed in the participants a healthy attitude towards the profession which would help them to assume professional leadership and responsibility. —

IN THE THIRD FIVE-YEAR PLAN

The Extension Services Project in Secondary Education has been acclaimed to be one of the most successful schemes of the Second Five-Year Plan. It has been observed that the Extension Services have injected new life in secondary schools and have made the Training Colleges dynamic by establishing various channels of free and frequent communication means in schools and colleges. They have amply demonstrated what can be achieved by the mutual cooperation of enterprising schools and colleges. There is no doubt that the Extension Services have created new faith and enthusiasm in schools and colleges and have proved that reconstruction and progress in the field of education is possible through carefully planned programmes. Therefore, the Ministry of Education, Government of India, have decided not only to continue and finance the existing Extension Services Departments, but to establish 25 new Extension Services Departments during the Third Five-Year Plan.

The National Council of Educational Research and Training have also approved the setting up of 72 Extension Services Units during the Third Five-Year Plan. In establishing the new Extension Services Departments and Extension Services Units, efforts have been made to cover almost all the existing secondary schools in the country. The number of existing Training Colleges in the various States will determine the ratio in which the new Extension Services Departments and Extension Services Units will be allotted to each State. By the end of the Third Five-Year Plan, we will have 79 Extension Services Departments and 72 Extension Services Units, providing in-service education to almost all the secondary schools in the country.

ASSESSMENT AND EVALUATION OF EXTENSION SERVICES CENTRES

In addition to the establishment of new Extension Services Departments and Extension Services Units, it is proposed to strengthen the Extension Services by starting numerous schemes for the all-round improvement of secondary education. All these new schemes are related to the following areas :-

Steps have been taken to launch a programme of continuous evaluation and assessment of each Extension Services Department with a view to find out how far the objectives are being achieved. The Coordinators have been requested to prepare and use a proforma for getting the reactions of the participants of every activity organised by them. They have also been requested to prepare and use a proforma which would be filled by 42 teachers of secondary schools every year in order to get their

reactions about the work of the Extension Services Department. The third proforma will be filled by 40 heads of secondary schools every year in order to get their reactions about the work of the Extension Services Departments. It has also been decided that the Coordinators will attach a self-addressed post-card in the publications of their Centres in order to get the reaction of selected readers about the utility of the publications. The DEPSE has printed two proformas—one for the use of the Coordinators to submit a quarterly report of work of DEPSE, to the Management and to the Director of Public Instruction of the State. The other proforma has been sent to all the Directors of Public Instruction in the States. This would be filled by the Inspectors of Schools, who are responsible for the inspection of secondary schools. This would help us to get the reactions of the inspecting officers about the impact of Extension Services on secondary schools.

As part of the continuous evaluation and assessment of Extension Services Departments, it is proposed to send visiting teams of experts to all the Extension Services Departments.

Steps have been taken to organise a series of training courses for Extension workers. It is proposed to start from September, 1962, short intensive training courses for Coordinators and other Extension workers.

The All-India Conference of Honorary Directors and Coordinators held in New Delhi in March, 1962, recommended that training courses for Extension workers should be organized by the DEPSE. These training courses would help the Coordinators and other Extension workers to discuss useful techniques of inservice education.

It is generally felt that the success of the Extension Services depends upon the cooperation of all the members of the Training College staff. Our experience has shown that wherever the Honorary Director and the Coordinator have been able to seek the co-operation of the Training College staff and have involved them in purposeful activities of inservice education, the Extension Services have achieved substantial results. If some of the promising members of the Training College staff are invited in these training courses, a good beginning will be made to involve them in Extension Services. Similarly, selected Deputy Directors of Education or District Inspectors of Schools as well as selected Principals of secondary schools may be invited in the training courses. This opportunity would help them to know about the work of Extension Services and it is likely to create new interest in them.

ORGANIZATION OF TRAINING COURSES FOR EXTENSION WORKERS

(1) The major objective of the training courses would be to develop some competence in the participants for the jobs that they have to perform in connection with inservice education of teachers and consultant services to secondary schools. It is imperative that all programmes of inservice education should be based on the needs and problems of teachers and schools. At the same time, the teachers in schools should be aware of the schemes and targets of the State Department of Education. Therefore, each participant of the training course should develop some competence for identifying the needs and problems of the schools and of keeping abreast of the programmes of the State Department of Education.

(2) It is of paramount importance that each member of the training course should develop an experimental outlook regarding all problems of secondary education. After identifying the needs, the teacher and the school administrator should be willing to try new techniques and procedures. Therefore, all Extension workers should develop knowledge and understanding of promising techniques for the improvement of secondary education. If possible, some experience may be given to the trainees for the application of promising techniques.

(3) It is exceedingly important that each member of the training course should develop some leadership qualities; for example, maintaining good human relations, guiding discussion and group work, creating confidence and enthusiasm, utilizing available resources, involving the teachers in purposeful activities and in sharing the responsibility of planning, implementing and evaluating the programmes of inservice education.

(4) Each member of the training course should develop competence for planning and organizing the various activities for inservice education and for providing consultant services to the schools. He should also develop some competence for the assessment and evaluation of the various programmes of inservice education.

CONTENTS AND PROCEDURES OF THE TRAINING COURSE

Keeping in view the above purposes of the training course for Extension workers, it is suggested that the contents of the training course may be as follows :—

(1) At the Commencement of the course, each member would present: (a) Description of needs, problems and short-comings of secondary schools in his area of work; (b) Description of inservice education activities and programmes with which he has been associated or is familiar including and amount of success, failures and difficulties; (c) Description

of promising techniques of inservice education in which he shows to develop competence during the training course.

(2) Lectures and discussion about inservice education in U.S.A. to be conducted by T.C.M. consultants.

(3) Lectures and discussion regarding inservice education and Extension Services in different States of India, conducted by selected Honorary Directors and Coordinators of Extension Centres, who should be invited to help in conducting the training course.

(4) The training course should provide guided opportunities for participating and leading group discussions, observing group process and evaluating achievements.

(5) Lectures and discussion, action research and experimental projects as well as preparation of some detailed plans for starting experimental projects in secondary schools. Role playing and demonstration may be utilized effectively for this work.

(6) The training course should provide opportunities for working with teachers and identifying their needs, guiding group discussion and encouraging the experimental outlook.

(7) The training course should provide opportunities for lecturers and discussion about the promotion of examination reform in secondary schools.

(8) The training course should provide opportunities for lecturers and discussion about the importance of teaching of science and the promotion of science club in secondary schools,

(9) Lecturers and discussion may be arranged for the improvement of teaching of social studies and the promotion of social studies clubs in secondary schools.

(10) The training course may provide opportunities for lecturers and discussion about selecting and using teaching aids and new methods of teaching in secondary schools. There should be a series of activities designed to show the participants how to make the effective use of teaching aids and new methods of teaching. The trainees may be involved in the activities such as : (a) Outlining a lecture he would like to have from a professor of education or a field worker; (b) Organising and evaluating a field trip; (c) Planning, observing and evaluating a lesson taught by a teacher; (d) Choosing the appropriate audio-visual aids for class-room teaching on various subjects; (e) Conducting a group discussion.

(11) The evaluation of training course may be done in the following ways : (a) Evaluating the success of the course at the end of the training by inviting opinions from the participants; (b) Evaluating after

nine or ten months on the basis of achievements of the participants in their areas of work; (c) Self-evaluation by Extension workers.

SEMINAR

The All-India Conference of Honorary Directors and Coordinators held in New Delhi in March, 1962, has approved a programme of Seminar Readings. This programme is designed to stimulate teachers, educational administrators, students of education and all those who are interested in educational problems to contribute papers on specific educational issues and problems. It is now increasingly being recognized that teachers and school administrators have a big contribution to make to the proper understanding of educational problems. The experience of all workers in education and the knowledge gained by some of them through study and research should be shared by other workers for enriching the educational thought and practice. The programme of Seminar Readings has been initiated by the DEPSE in association with the State Departments of Education and the Extension Services Centres for providing all workers in education a means of making significant educational experiences and experiments widely known. Papers of about 2,000 words have been invited from all over the country. They may be written in English or any important language in which instruction is being imparted in any secondary school. These contributions would reach the Extension Services Centres by the 15th of January, 1963. Some time after this date, the Extension Centres will organize a series of Seminar Readings in which the contributors would read the papers submitted by them. This would give an opportunity to the teachers and educational workers to have discussion on the issues raised in the papers. The next stage in the programme of Seminar Readings is the State-level contest, in which the selected paper on various subjects from each Extension Centre within the State will be presented by the contributors. Here again, opportunity for discussion will be provided to a large number of teachers and school administrators. The third stage in the programme of Seminar Readings would be an all-India contest in which the outstanding papers from each State will be presented by the contributors. This again would provide an opportunity to a large number of participants for discussing the issues and problems raised in the papers. After the all-India contest, about 20 outstanding papers will be selected. An award of Rs. 500/- would be given to the contributor of the outstanding papers. It is also proposed to publish the award-winning papers.

For 1962-63, under the programme of Seminar Readings, contributions have been invited on the following subjects :

- (1) Standards of education in secondary schools.
- (2) Improvement of science teaching in schools.
- (3) How to make teaching and learning more effective in secondary schools with reference to specific school subjects ?
- (4) Social Studies in the secondary school curriculum.
- (5) Improvising instructional aids and their effective utilization.
- (6) Education of talented pupils in secondary schools.
- (7) System of examination at the secondary stage—Does not need a change ?
- (8) Health education in secondary schools.

PREPARATION OF SOURCE BOOKLETS

The All-India Conference held in New Delhi in March, 1962, considered the vital role of social studies in fostering emotional and national integration and recommended that steps should be taken to prepare source booklets for teachers of social studies for each district in India. It is expected that this work should be completed in 20 districts during 1962-63. The main purpose of this booklet is to provide in a convenient manner all the information about a district for the use of teachers of social studies. Another purpose is to help the teachers of social studies in discovering and utilizing the community resources for enriching social studies. For the preparation of these booklets, the Extension Centres have set up working groups, consisting of outstanding teachers of social studies. It is expected that the Extension Centre would take up this work in two districts under its jurisdiction during 1962-63. The main sections in each booklet will deal with history, geography, sociology, places of interest, administrative set-up and educational progress of the district after 1947.

IMPROVEMENT AND EXPANSION OF SCIENCE EDUCATION

The DEPSE has launched upon a big programme for the development and expansion of science education in secondary schools. The Science Unit of the DEPSE has prepared a model syllabus in general science for classes I to VIII. During 1962-63, workshops would be organized at each Extension Services Centre to discuss this syllabus. Participants in these workshops would include selected teachers from primary schools, teachers from secondary schools, science lecturers of post-graduate and under-graduate Training Colleges and inspecting

officers. These workshops would critically examine the syllabus in general science already in vogue in the States and suggest modifications in the light of the model syllabus prepared by the DEPSE. These workshops will also suggest teaching aids and improvised apparatus for the different ideas of the syllabus for the guidance of teachers. Special funds would be allotted to the Extension Centres, if necessary. Boards of Secondary Education would also be associated in these workshops.

Another major item is the organization of content courses for science teachers. The Extension Services Centres would organize these courses in cooperation with the State Departments of Education. Detailed lesson-plans for selected items of syllabus will also be prepared by the participants in these courses.

Extension Services Centres would also take up the task of preparing detailed outlines of experimental projects in science for the guidance of teachers. Such projects would be prepared for different age-groups in secondary schools.

Efforts would be made to prepare supplemental reading material for science students. Some Extension Centres would take up this work and prepare supplementary readers for students of different age-groups. Steps would be taken to publish the selected supplementary readers for the use and guidance of teachers in other parts of the country.

Thus, the Extension Services are expanding their area of influence and bringing about some very real changes in the educational world. Financial and other resources, though not coming upto our desires and wishes, are still moderately satisfactory. What we sadly lack is manpower—personnel adequately trained and sufficiently interested, to tackle the local problems sympathetically and imaginatively. With more consciousness of the national responsibility awakening among our educators, this too may find a solution—let us hope, in a not-too-distant future.